



Low-Voltage Products

MCB, RCCB, RCBO, Contactor, Isolator & Consumer Box
Malaysia Catalogue



About Himel

Himel is a multinational manufacturer and provider of electrical products that successfully combines global expertise with local knowledge. We focus on long-term partnership with customers and offers products that meet real needs and ensure adequate compatibility for common usage.

Our global footprint and technology allow to provide the best combination of affordable and reliable offers for low voltage power distribution, industry automation and home electric in the over 50 countries where we are present.

Himel. Founded in Spain in 1958



Reliable Quality



For more details, please contact your local Himel Distributor.



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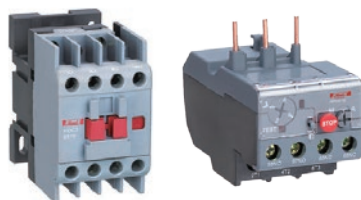
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HDB3wHN 18mm Miniature Circuit Breaker

Standard: IEC/EN60898-1



Function

HDB3wHN Miniature standard circuit breaker has the following function:

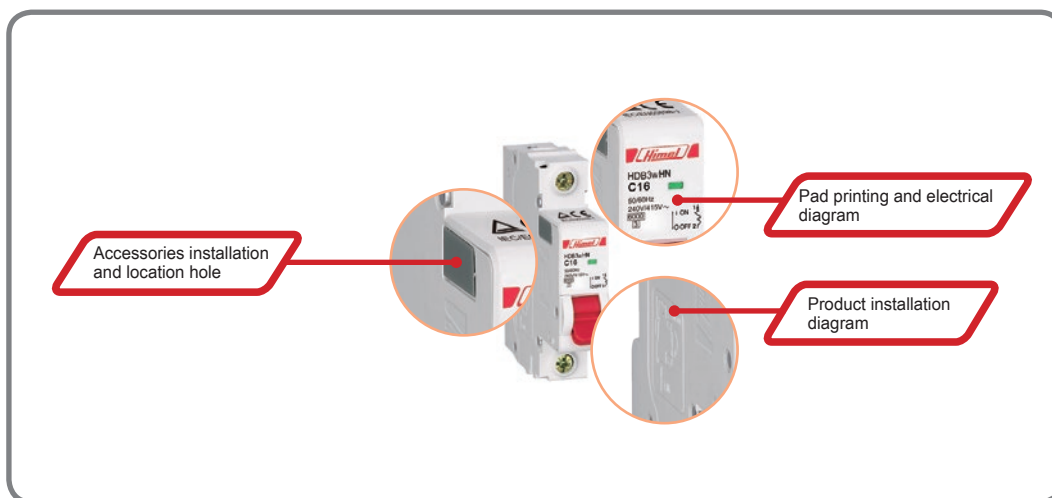
- Short circuit protection
- Overload protection
- Control
- Isolation

Main Features

Rated operating voltage (V)	1P: 240 AC 2P, 3P, 4P: 415 AC
Rated current (A)	6-63A
Rated frequency (Hz)	50/60
Number of poles	1P, 2P, 3P, 4P
Breaking capacity (kA)	6



Product Details Display



HDB3wHN 18mm Miniature Circuit Breaker

Standard: IEC/EN60898-1



HDB3wHN Selection Guide

Product name	Breaking capacity	Number of poles	Trip type	Rated current	
HDB3wHN	N	1	C	6	
	N: 6kA	1: 1P	B: Type B	6: 6A	50: 50A
		2: 2P	C: Type C	10: 10A	63: 63A
		3: 3P	D: Type D	16: 16A	
		4: 4P		20: 20A	
				25: 25A	
				32: 32A	
				40: 40A	



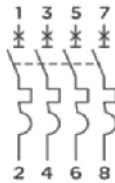
HDB3wHN Breaking capacity	Pole	Rated current	Trip type		
			B	C	D
6kA	1P	6	HDB3wHN1B6	HDB3wHN1C6	HDB3wHN1D6
		10	HDB3wHN1B10	HDB3wHN1C10	HDB3wHN1D10
		16	HDB3wHN1B16	HDB3wHN1C16	HDB3wHN1D16
		20	HDB3wHN1B20	HDB3wHN1C20	HDB3wHN1D20
		25	HDB3wHN1B25	HDB3wHN1C25	HDB3wHN1D25
		32	HDB3wHN1B32	HDB3wHN1C32	HDB3wHN1D32
		40	HDB3wHN1B40	HDB3wHN1C40	HDB3wHN1D40
		50	HDB3wHN1B50	HDB3wHN1C50	HDB3wHN1D50
		63	HDB3wHN1B63	HDB3wHN1C63	HDB3wHN1D63



6kA	2P	6	HDB3wHN2B6	HDB3wHN2C6	HDB3wHN2D6
		10	HDB3wHN2B10	HDB3wHN2C10	HDB3wHN2D10
		16	HDB3wHN2B16	HDB3wHN2C16	HDB3wHN2D16
		20	HDB3wHN2B20	HDB3wHN2C20	HDB3wHN2D20
		25	HDB3wHN2B25	HDB3wHN2C25	HDB3wHN2D25
		32	HDB3wHN2B32	HDB3wHN2C32	HDB3wHN2D32
		40	HDB3wHN2B40	HDB3wHN2C40	HDB3wHN2D40
		50	HDB3wHN2B50	HDB3wHN2C50	HDB3wHN2D50
		63	HDB3wHN2B63	HDB3wHN2C63	HDB3wHN2D63



6kA	3P	6	HDB3wHN3B6	HDB3wHN3C6	HDB3wHN3D6
		10	HDB3wHN3B10	HDB3wHN3C10	HDB3wHN3D10
		16	HDB3wHN3B16	HDB3wHN3C16	HDB3wHN3D16
		20	HDB3wHN3B20	HDB3wHN3C20	HDB3wHN3D20
		25	HDB3wHN3B25	HDB3wHN3C25	HDB3wHN3D25
		32	HDB3wHN3B32	HDB3wHN3C32	HDB3wHN3D32
		40	HDB3wHN3B40	HDB3wHN3C40	HDB3wHN3D40
		50	HDB3wHN3B50	HDB3wHN3C50	HDB3wHN3D50
		63	HDB3wHN3B63	HDB3wHN3C63	HDB3wHN3D63



6kA	4P	6	HDB3wHN4B6	HDB3wHN4C6	HDB3wHN4D6
		10	HDB3wHN4B10	HDB3wHN4C10	HDB3wHN4D10
		16	HDB3wHN4B16	HDB3wHN4C16	HDB3wHN4D16
		20	HDB3wHN4B20	HDB3wHN4C20	HDB3wHN4D20
		25	HDB3wHN4B25	HDB3wHN4C25	HDB3wHN4D25
		32	HDB3wHN4B32	HDB3wHN4C32	HDB3wHN4D32
		40	HDB3wHN4B40	HDB3wHN4C40	HDB3wHN4D40
		50	HDB3wHN4B50	HDB3wHN4C50	HDB3wHN4D50
		63	HDB3wHN4B63	HDB3wHN4C63	HDB3wHN4D63

HDB3wHN 18mm Miniature Circuit Breaker

Standard: IEC/EN60898-1



Functions and Features

Electrical Characteristics

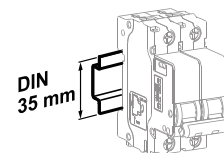
Rated insulation voltage U_i	(V)	250 (phase-to-ground) 500 (phase-to-phase)
Maximum working voltage U_{Bmax}	(V)	240/415 AC
Rated short-circuit capacity I_{cn} (IEC/EN60898)	(kA)	6
Rated impulse withstand voltage U_{imp} (1.2/50)	(kA)	4
Dielectric test voltage		2kV (50/60HZ, 1min)
Over-voltage category		II
Isolating function		Available
Pollution class		2
Electric shock protection grade		II
Trip type:		Thermal magnetic trip
Thermal magnetic trip characteristics:	Type B curve (3I _n ~5I _n) Type C curve (5I _n ~10I _n) Type D curve (10I _n ~14I _n)	
Electrical and mechanical accessories		

Mechanical Characteristics

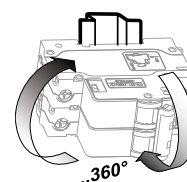
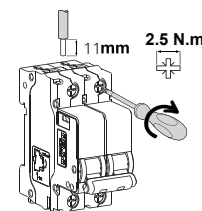
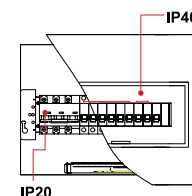
Handle	Red, pad printing indicating ON-OFF position
Mechanical endurance	20,000 times
Electrical endurance	7,000 times
Protection grade	Installed in distribution box IP40 Installed directly IP20
Mechanical shock resistance	30g, 3 shocks, lasting 11ms (No significant vibration or shock)
Anti-vibration (IEC/EN 60947-2)	No significant vibration or shock
Rated ambient temperature	30°C
Operating ambient temperature (daily mean temperature)	-20° C~+60°C
Storage temperature	-40° C~+70°C

Installation Features

Terminal form	Tunnel terminal
Maximum wiring capacity	Current ratings 1-63 25mm ²
Maximum ultimate torque	Current ratings 1-63:2.5 N.m
Tool:	Crosshead screwdriver or flathead screwdriver
Installation	Installed on standard DIN guide rail (35mm)
Wiring Type	Top or bottom



Installed on 35mm standard guide rail



Flexible installation direction

HDB3wHN 18mm Miniature Circuit Breaker

Standard: IEC/EN60898-1



Trip Characteristic

B features

The miniature circuit breaker with B tripping features meets IEC 60898 standard and applies to providing protection for the resistive load or the load without impulse current.

C features

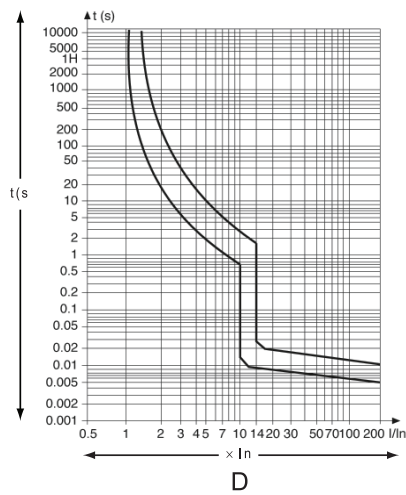
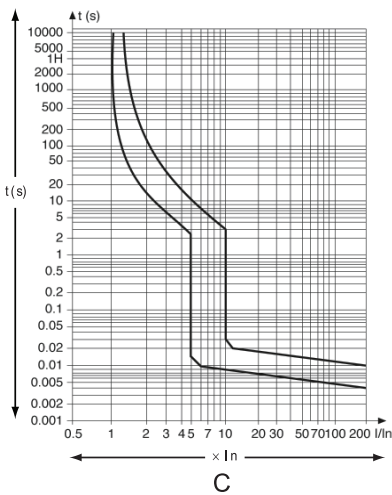
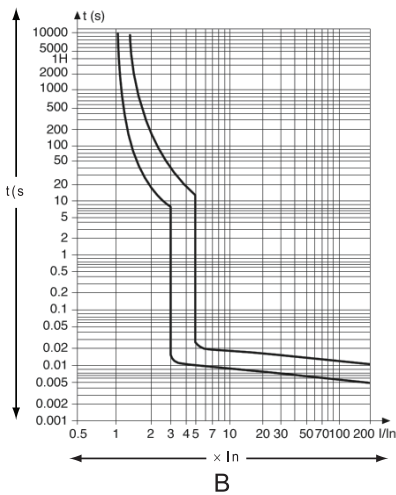
The miniature circuit breaker with C trip features meets IEC60898 standard and applies to providing protection for the resistive load and the inductive load with lower impulse current

D features

The miniature circuit breaker with D trip features meets IEC60898 standard and applies to providing protection for the load with higher impulse current at circuit connection.

Tripping type	Compliance standard	Thermal trip characteristics				Electro-magnetic trip characteristics			
		Test current	Test time	Initial state	Expected result	AC test current	Test time	Initial state	Expected result
B	IEC60898	1.13In	≥1h	Cold state	Non tripping	3In	≥0.1s	Cold state	Non-tripping
		1.45In	<1h	Heated state	Tripping	5In	<0.1s		Tripping
C	IEC60898	1.13In	≥1h(≤ 63A) ≥ 2h(>63A)	Cold state	Non tripping	5In	≥0.1s	Cold state	Non-tripping
		1.45In	<1h (≤ 63A) <2h (>63A)	Heated state	Tripping	10In	<0.1s		Tripping
D	IEC60898	1.13In	≥1h	Cold state	Non tripping	10In	≥0.1s	Cold state	Non-tripping
		1.45In	<1h	Heated state	Tripping	14In	<0.1s		Tripping

Tripping Curve



HDB3wHN 18mm Miniature Circuit Breaker

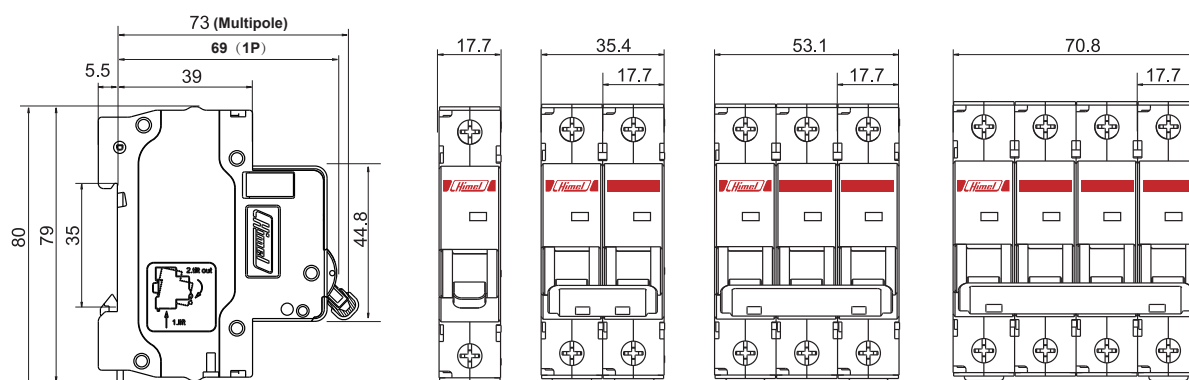
Standard: IEC/EN60898-1



Temperature Correction Coefficient Table

Rated current	Rated current correction value A								
A	-20	-10	0	10	20	30	40	50	60
6	7.33	7.05	6.84	6.62	6.3	6	5.64	5.42	5.06
10	12.25	11.87	11.64	11.15	10.62	10	9.3	8.96	8.48
16	19.49	18.72	18.06	17.98	16.96	16	15.04	14.42	13.47
20	24.35	23.68	22.82	22.47	21.2	20	18.8	17.85	16.78
25	30.52	29.61	28.78	28.09	26.5	25	23.25	22.52	21.02
32	38.96	37.68	36.62	35.96	33.92	32	30.08	28.81	26.84
40	48.85	47.13	46.32	45.8	42.8	40	36.8	36.21	33.5
50	61.58	59.52	57.35	55.04	52.59	50	46	44.25	42.36
63	76.86	74.25	71.18	69.13	67.41	63	58.59	56.83	52.93

HDB3wHN Installation Dimension



Accessories

HDB3wHN

Standard:OF/SD: IEC/EN60947-5-1, MN/MV/MVMN: IEC/EN 60947-2; MO: IEC/EN 60947-1(MX);IEC/EN60947-5-1(OF)

Accessories

Remote indication accessories

■ OF Auxiliary contact

- External circuit, indicating the close and open status of the circuit breaker
- Basic form of auxiliary contacts; one normally open and one normally closed
- Wiring capacity: 1-2.5mm² wire

■ SD Alarm contact

- Issue a signal in case of circuit breaker fault trip
- Mechanical indication on the front panel can indicate the fault trip
- Basic form of auxiliary contacts; one normally open and one normally closed
- Wiring capacity: 1-2.5mm² wire

Trip accessories

■ MX+OF Shunt release

- External circuit, indicating the close and open status of the circuit breaker
- Trigger the circuit breaker assembled with it to trip after obtaining the signal
- Basic form of auxiliary contacts; one normally open and one normally closed
- Wiring capacity: 1-2.5mm² wire

■ MV Over-voltage release

- Protect the line over-voltage fault
- Trigger the circuit breaker assembled with it to trip after the voltage at both ends of the release rises to the rated range
- The fault trip indication is provided on the front panel and the upspring of the indicating part indicates the over-voltage trip
- Rated work trip over-voltage: 280 (1±5%) V AC
- Wiring capacity: 1-2.5mm²

■ MN Under-voltage release

- Protect the line under-voltage fault
- Trigger the circuit breaker assembled with it to trip after the voltage at both ends of the release rises to the rated range
- The fault trip indication is provided on the front panel and the upspring of the indicating part indicates the under-voltage trip
- Rated work trip under-voltage: 161 (1±5%) V AC, under-voltage protection range (35% 70%) Ue
- Wiring capacity: 1-2.5mm²

■ MV+MN Over-voltage and under-voltage release

- Protect the line over-voltage, under-voltage and other faults
- Trigger the circuit breaker assembled with it to trip after the voltage at both ends of the release rises to the rated range
- The fault trip indication is provided on the front panel and the upspring of the indicating part indicates the over-voltage or under-voltage trip
- Rated work trip over-voltage: 280 (1±5%) V AC, rated work trip under-voltage: 161(1±5%) V AC, under-voltage protection range (35% 70%) Ue
- Wiring capacity: 1-2.5mm²



HDB3w-125 27mm Molded Case Circuit Breaker

IEC/EN60947-2



HDB3w-125 Molded Case Circuit Breaker has the following features

- Short circuit protection
- Overload protection
- Isolating function

Product name	Breaking capacity	Poles	Trip type	Rated current
HDB3w-125	N	1	C	80
	↓	↓	↓	↓
	N:6kA H:10kA	1: 1P 2: 2P 3: 3P 4: 4P	C: C curve ($I_i=8.5I_n$) D: D curve ($I_i=12I_n$)	80: 80A 100: 100A 125: 125A

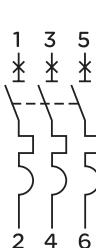
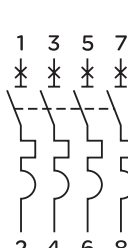


Type	Breaking capacity (kA)	Rated current	Trip type	
			C	D
1P 	6	80	HDB3w125N1C80	HDB3w125N1D80
		100	HDB3w125N1C100	HDB3w125N1D100
		125	HDB3w125N1C125	HDB3w125N1D125
	10	80	HDB3w125H1C80	HDB3w125H1D80
		100	HDB3w125H1C100	HDB3w125H1D100
		125	HDB3w125H1C125	HDB3w125H1D125

HDB3w-125 27mm Molded Case Circuit Breaker

IEC/EN60947-2



Type	Breaking capacity (kA)	Rated current	Trip type	
			C	D
2P 	6	80	HDB3w125N2C80	HDB3w125N2D80
		100	HDB3w125N2C100	HDB3w125N2D100
		125	HDB3w125N2C125	HDB3w125N2D125
	10	80	HDB3w125H2C80	HDB3w125H2D80
		100	HDB3w125H2C100	HDB3w125H2D100
		125	HDB3w125H2C125	HDB3w125H2D125
3P 	6	80	HDB3w125N3C80	HDB3w125N3D80
		100	HDB3w125N3C100	HDB3w125N3D100
		125	HDB3w125N3C125	HDB3w125N3D125
	10	80	HDB3w125H3C80	HDB3w125H3D80
		100	HDB3w125H3C100	HDB3w125H3D100
		125	HDB3w125H3C125	HDB3w125H3D125
4P 	6	80	HDB3w125N4C80	HDB3w125N4D80
		100	HDB3w125N4C100	HDB3w125N4D100
		125	HDB3w125N4C125	HDB3w125N4D125
	10	80	HDB3w125H4C80	HDB3w125H4D80
		100	HDB3w125H4C100	HDB3w125H4D100
		125	HDB3w125H4C125	HDB3w125H4D125



HDB3w-125 27mm Molded Case Circuit Breaker

IEC/EN60947-2

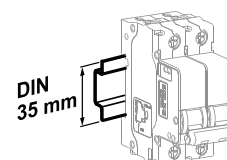


Electrical Characteristics

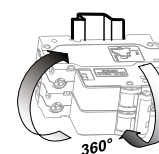
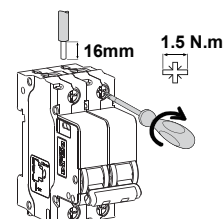
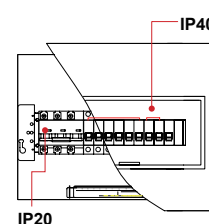
Rated insulation voltage U_i	(V)	250 (phase-to-ground) / 500 (phase-to-phase)
Rated working voltage U_{Bmax}	1P (V)	230VAC
	2P, 3P, 4P	400VAC
Rated short-circuit capacity I_{cn} (IEC/EN60898)	(KA)	6, 10
Rated impulse withstand voltage (1.2/50)	(KV)	4
Dielectric test voltage		2kV (50/60HZ, 1 minute)
Isolating function		Available
Pollution class		2
Tripping type		Thermal magnetic tripping
Thermal magnetic trip characteristics	C curve (5In~10In)	
	D curve (10In~14In)	
Electrical and mechanical accessories		

Mechanical Characteristics

Handle		Red, pad printing indicating ON-OFF position
Mechanical life	Times	10000
Electrical life	Times	4000
Protection rating	Installed in distribution box	IP40
	Installed directly	IP20
Mechanical shock resistance		30g, 3 shocks, last for 11ms (Places with no significant vibration or shock)
Anti-vibration (IEC/EN 60068-2-6)		(Places with no significant vibration or shock)
High temperature humidity resistant	High temperature humidity (°C/RH)	Category 2, 28 cycles Relative humidity 90%~96% at 55 °C Relative humidity 95%~100% at 25 °C
Reference ambient temperature	°C	30 °C
Operating ambient temperature (daily mean temperature $\leq +35^{\circ}\text{C}$)	°C	-20 °C ~+60 °C
Storage temperature	°C	-40 °C ~+70 °C



Installed on 35mm
standard guide rail



Flexible installation
direction

IEC/EN60947-2



Terminal type		Tunnel terminal
Maximum wiring capacity	(A)	Current ratings 63-125:50mm ²
Maximum ultimate torque	(A)	Current ratings 63-125:3.5N.m
Tools		Cross head screwdriver or flathead screwdriver
Installation		Installed on standard DIN guide rail (35mm)
Line incoming mode		Top or bottom

1P

1P Right side view

2~4P Right side view

2P

3P

4P

Technical drawings of the HIMEL 1000 series circuit breakers, showing front and side views with dimensions in millimeters.

1P Dimensions:

- Front view width: 27
- Right side view width: 69
- Right side view height: 86.4
- Right side view mounting hole spacing: 5.5, 44
- Right side view handle height: 45
- Right side view handle width: 5.5
- Right side view handle depth: 44
- Right side view handle width: 72.5

2P Dimensions:

- Front view width: 54

3P Dimensions:

- Front view width: 81

4P Dimensions:

- Front view width: 108

HDB9 Series



- High breaking capacity
- The highest current energy limiting class
- High quality raw material
- The quick closed technology



HDB9 18mm Miniature Circuit Breaker

Standard: IEC/EN 60898-1
Trip Curve: B, C and D curves
Breaking Capacity: 10000A



Function

HDB9 miniature circuit breakers combine the following functions:

- ☐ Protection of circuits against overload currents
- ☐ Protection of circuits against short-circuit currents
- ☐ Control
- ☐ Isolation

Order Information

Name	Breaking Capacity(kA)	Frame Size	Pole	Type	Rated current
HDB9	H: 10kA	63A:63AF	1:1P	B:B Curve	6:6A
			2:2P	C:C Curve	...
			3:3P	D:D Curve	63:63A



Type	Breaking Capacity(kA)	Rating(A)	Width	Reference		
				B Curve	C Curve	D Curve
	10	6	2	HDB9H63A1B6	HDB9H63A1C6	HDB9H63A1D6
		10	2	HDB9H63A1B10	HDB9H63A1C10	HDB9H63A1D10
		16	2	HDB9H63A1B16	HDB9H63A1C16	HDB9H63A1D16
		20	2	HDB9H63A1B20	HDB9H63A1C20	HDB9H63A1D20
		25	2	HDB9H63A1B25	HDB9H63A1C25	HDB9H63A1D25
		32	2	HDB9H63A1B32	HDB9H63A1C32	HDB9H63A1D32
		40	2	HDB9H63A1B40	HDB9H63A1C40	HDB9H63A1D40
		50	2	HDB9H63A1B50	HDB9H63A1C50	HDB9H63A1D50
		63	2	HDB9H63A1B63	HDB9H63A1C63	HDB9H63A1D63
	10	6	4	HDB9H63A2B6	HDB9H63A2C6	HDB9H63A2D6
		10	4	HDB9H63A2B10	HDB9H63A2C10	HDB9H63A2D10
		16	4	HDB9H63A2B16	HDB9H63A2C16	HDB9H63A2D16
		20	4	HDB9H63A2B20	HDB9H63A2C20	HDB9H63A2D20
		25	4	HDB9H63A2B25	HDB9H63A2C25	HDB9H63A2D25
		32	4	HDB9H63A2B32	HDB9H63A2C32	HDB9H63A2D32
		40	4	HDB9H63A2B40	HDB9H63A2C40	HDB9H63A2D40
		50	4	HDB9H63A2B50	HDB9H63A2C50	HDB9H63A2D50
		63	4	HDB9H63A2B63	HDB9H63A2C63	HDB9H63A2D63
	10	6	6	HDB9H63A3B6	HDB9H63A3C6	HDB9H63A3D6
		10	6	HDB9H63A3B10	HDB9H63A3C10	HDB9H63A3D10
		16	6	HDB9H63A3B16	HDB9H63A3C16	HDB9H63A3D16
		20	6	HDB9H63A3B20	HDB9H63A3C20	HDB9H63A3D20
		25	6	HDB9H63A3B25	HDB9H63A3C25	HDB9H63A3D25
		32	6	HDB9H63A3B32	HDB9H63A3C32	HDB9H63A3D32
		40	6	HDB9H63A3B40	HDB9H63A3C40	HDB9H63A3D40
		50	6	HDB9H63A3B50	HDB9H63A3C50	HDB9H63A3D50
		63	6	HDB9H63A3B63	HDB9H63A3C63	HDB9H63A3D63

Note: Width refers to multiple of 9 mm.
B curve product need to customize



HDB9 18mm Miniature Circuit Breaker

Standard: IEC/EN 60898-1
Trip Curve: B, C and D curves
Breaking Capacity: 10000A



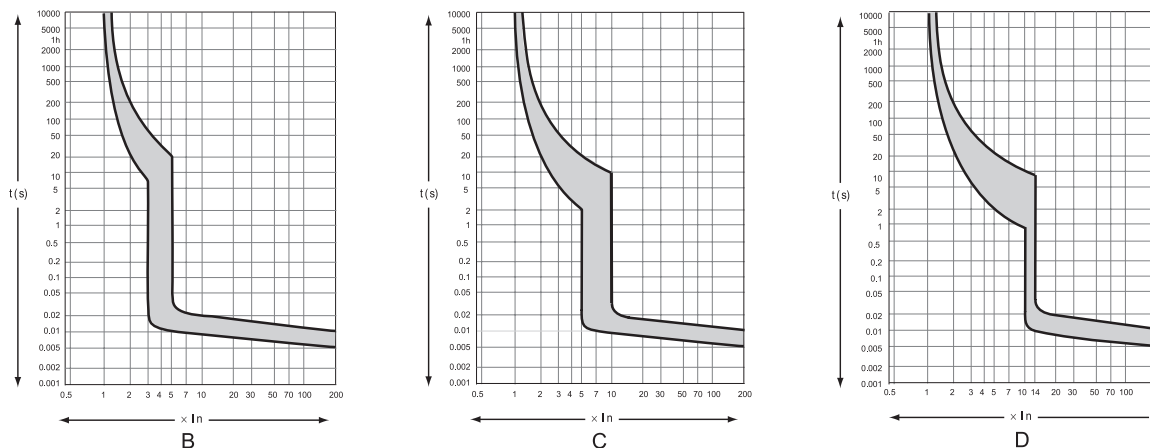
Technical Data					
MCB	HDB9 18mm Circuit Breaker				
Electrical Features	Standard	IEC/EN 60898-1			
	Certification	KEMA, CB, CE			
	Poles	1P, 2P, 3P			
	Rated Current In	6,10,16,20,25,32,40,50,63A			
	Rated Voltage Ue	230/400V AC			
	Insulation Voltage Ui	500V			
	Breaking Capacity Icn				
	Rate Current (A)	Breaking Capacity Icn (kA)	Type	Poles	Voltage (V)
	1-63	10	B,C,D	1P	230/400
				2P,3P	400
	Tripping Curve(see following tripping curve pictures)				
	B curve; the magnetic release operates between 3 and 5 In				
C curve; the magnetic release operates between 5 and 10 In					
D curve; the magnetic release operates between 10 and 14 In					
Mechanical Features	Electrical Durability	10000 times			
	Mechanical Durability	20000 times			
	Protection Degree	2			
	Ambient Temperture	-30 °C~+70°C			
Connection	1-32A	Up to 25mm² cables	40-63	Up to 35mm² cables	
Installation	Rate Current(A)	Screw	Rated Torque(Nm)	Limiting Torque(Nm)	
	1-32	M5	2.0	2.5	
	40-63	M6.5	3.5	2.5	
Mounting	35mm Din-rail				
Accessories	Contact Accessory OF				
	Fault-Indicating Accessory SD				
	Shunt-Trip Release MX+OF				

HDB9 18mm Miniature Circuit Breaker

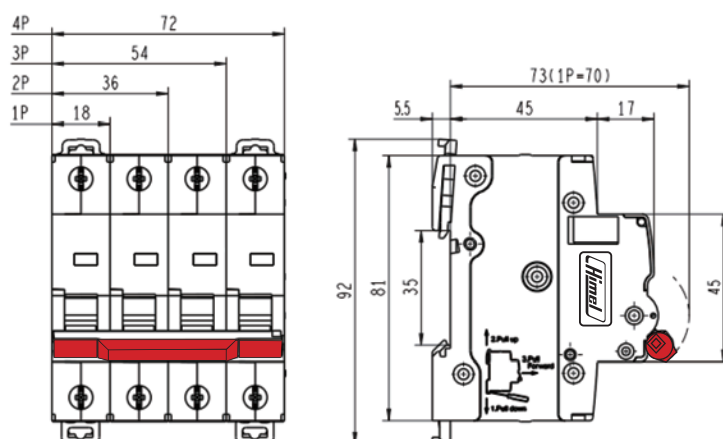
Standard: IEC/EN 60898-1
Trip Curve: B, C and D curves
Breaking Capacity: 10000A



Tripping Curve



Overall Dimensions



Unit: mm

Accessories



Accessories

HDB9



Accessory

The sketch map of installation with breakers



Remote Control Auxiliaries

■ OF contact auxiliary

- Indicate ON or OFF state of the breaker
- Basic type of auxiliary contact: 1NO+1NC

■ SD fault-indicating switch

- Sent out fault signal on the front when breaking down
- Indicator on the front to show fault trip
- Basic type of auxiliary contact: 1NO+1NC

Tripping Device

■ MX+OF shunt trip release

- Indicate ON or OFF state of the breaker
- Without tools ,directly installed on the left of MCB

Introductions

- Without tools ,direct installed on the left of MCB
- Each MCB maximum assembles 3 control auxiliaries(OF or SD)

Order Information

Type	Width(mm)	Voltage(V)	Reference
OF	9		HDB963OF
SD	9		HDB963SD
MX+OF	18	AC/DC 12/24V	HDB963MX24
	18	AC/DC 48V	HDB963MX48
	18	AC 100-415V DC 110-130V	HDB963MX415



HDG3 Switch Disconnecter (Isolator)

Standard : IEC 60947-3



Range Presentation

HDG3 is the Himel 3 series range of switch disconnector designed to switch on and off the power system.

The 3 series switch disconnector is mainly used in commercial and residential buildings.

Features

- ◆ Full product portfolio from 20A to 125A
- ◆ Suitable to industry application



Selection Code

Range name	Number of poles	Rated current
HDG3	3	32
HDG3	1: 1P 2: 2P 3: 3P 4: 4P	20: 20A 63: 63A 25: 25A 80: 80A 32: 32A 100: 100A 40: 40A 125: 125A 50: 50A

Technical Parameters

Switch Disconnectors	HDG3
Electrical characteristics	
Standard	IEC 60947-3
Certificate	CE, CB, ROHS
Rated insulation voltage Ui	500V
Frequency	50/60Hz
Rated operational voltage Ue	230 (1P) 400V (2P, 3P, 4P)
Rated short-time withstand current Icw (kA)	20le/1s
Rated short-circuit making capacity Icm (kA)	28, 1le
Rated impulse withstand voltage Uimp	4kV
Pollution class	2
Isolation function	Yes
Mechanical characteristics	
Mechanical endurance	8500(≤100A) 7000(125A)
Electrical endurance	3000
Protection class	IP40 (Installed in DB box) IP20 (Installed directly)
Mechanical shock resistance	30g, 3 shocks, lasting 11ms
Rated ambient temperature	30°C
Operating ambient temperature	-20°C ~ +60°C
Storage temperature	-40°C ~ +70°C
Installation Features	
Maximum wiring capacity	25mm ²
Maximum torque	2.5N.m
Installation	35mm DIN rail
Line incoming type	Top or bottom

HDG3 Switch Disconnecter (Isolator)

Standard : IEC 60947-3



HDG3 Switch Disconnecter	Pole	Rated current	Reference
1P		20	HDG3120
		25	HDG3125
		32	HDG3132
		40	HDG3140
		63	HDG3163
		80	HDG3180
		100	HDG31100
		125	HDG31125
2P		20	HDG3220
		25	HDG3225
		32	HDG3232
		40	HDG3240
		63	HDG3263
		80	HDG3280
		100	HDG32100
		125	HDG32125
3P		20	HDG3320
		25	HDG3325
		32	HDG3332
		40	HDG3340
		63	HDG3363
		80	HDG3380
		100	HDG33100
		125	HDG33125
4P		20	HDG3420
		25	HDG3425
		32	HDG3432
		40	HDG3440
		63	HDG3463
		80	HDG3480
		100	HDG34100
		125	HDG34125

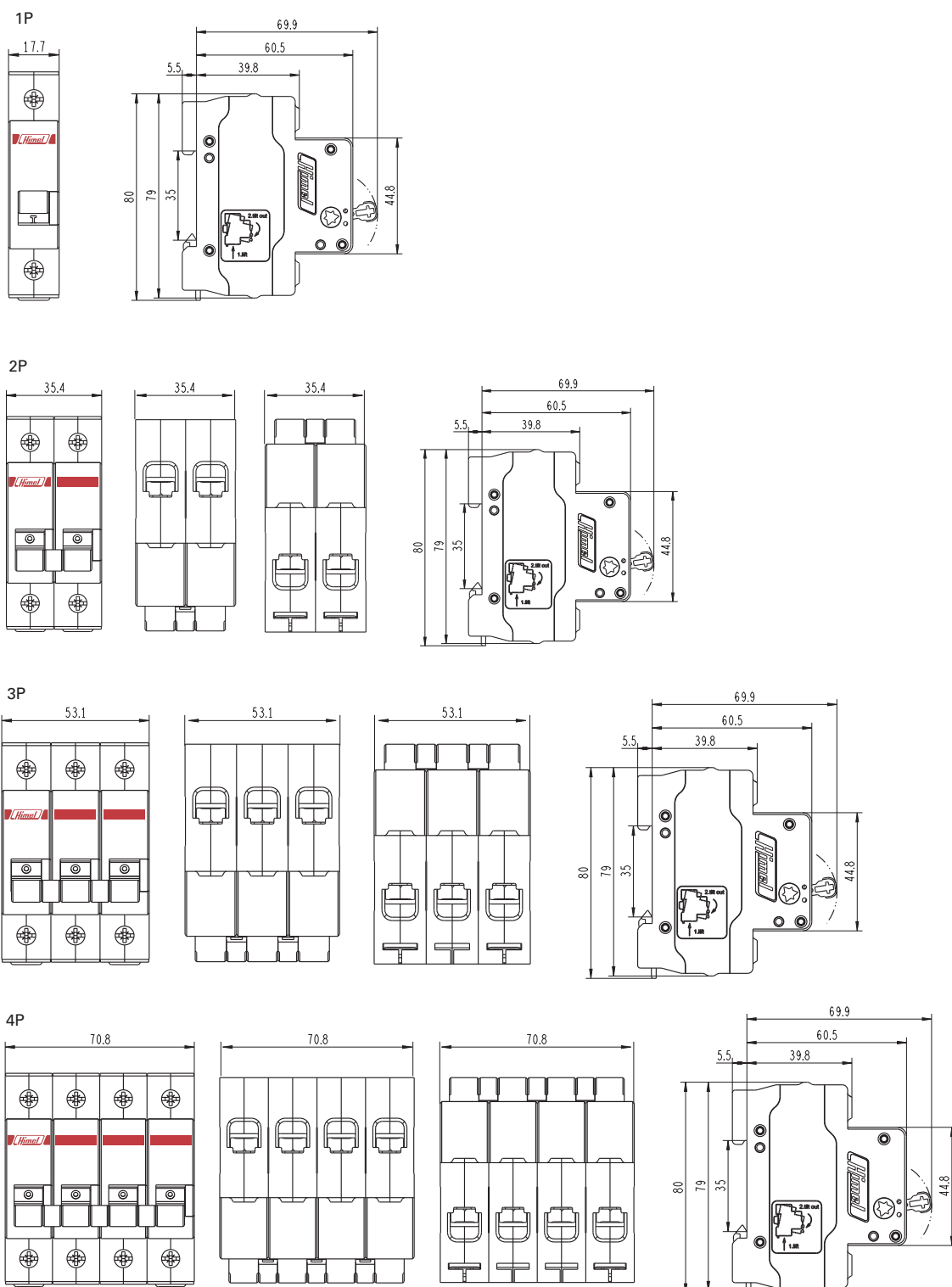


HDG3 Switch Disconnecter (Isolator)

Standard : IEC 60947-3



HDG3 Switch Disconnecter



HDB3VR Residual Current Operated Circuit Breaker (RCCB)

Standard: IEC/EN 61008-1



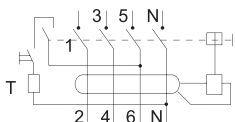
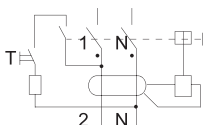
Function

HDB3VR Electromagnetic Type Residual Current Switch combine the following functions:

- Protection for users against indirect contacts
- Additional protection for users against direct contacts (30mA)
- Protection for electrical installations against insulation faults (fire hazard, etc)

Order Information

Type	Width (In mod. of 9mm)	Rating (A)	Sensitivity (mA)	Reference	
				AC type	
2P 63AF	4	16	10	HDB3VR216LC	
			30	HDB3VR216SC	
			100	HDB3VR216YC	
			300	HDB3VR216TC	
		20	10	HDB3VR220LC	
			30	HDB3VR220SC	
			100	HDB3VR220YC	
			300	HDB3VR220TC	
		25	10	HDB3VR225LC	
			30	HDB3VR225SC	
			100	HDB3VR225YC	
			300	HDB3VR225TC	
		40	30	HDB3VR240SC	
			100	HDB3VR240YC	
			300	HDB3VR240TC	
		63	30	HDB3VR263SC	
			100	HDB3VR263YC	
			300	HDB3VR263TC	
100AF		100	30	HDB3VR2100SC	
			100	HDB3VR2100YC	
			300	HDB3VR2100TC	
4P 63AF	8	16	30	HDB3VR416SC	
			100	HDB3VR416YC	
			300	HDB3VR416TC	
		20	30	HDB3VR420SC	
			100	HDB3VR420YC	
			300	HDB3VR420TC	
		25	30	HDB3VR425SC	
			100	HDB3VR425YC	
			300	HDB3VR425TC	
		40	30	HDB3VR440SC	
			100	HDB3VR440YC	
			300	HDB3VR440TC	
		63	30	HDB3VR463SC	
			100	HDB3VR463YC	
			300	HDB3VR463TC	
		100AF	30	HDB3VR4100SC	
			100	HDB3VR4100YC	
			300	HDB3VR4100TC	



HDB3VR

Residual Current Operated Circuit Breaker (RCCB)

Standard: IEC/EN 61008-1

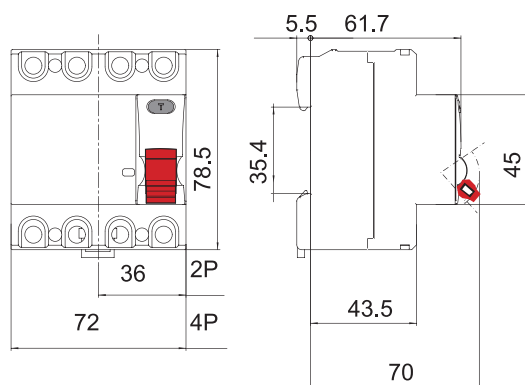


Technical Parameters

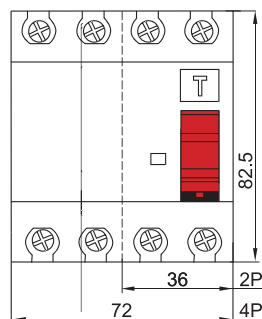
RCCB	HDB3VR Electromagnetic Type Residual Current Switch
Electrical characteristics	
Standard	IEC61008-1
Certificate	CE, TUV, ROHS
Rated insulation voltage U_i	500V
Frequency	50/60Hz
Rated operational voltage U_e	240 (2P) 415v (4P)
Rated short-circuit capacity I_{cn}	6kA
Rated impulse withstand voltage U_{imp}	4kV
Pollution class	2
Type	AC Type
Isolation function	Yes
Rated residual operating current $I_{\Delta n}$	10, 30, 100, 300mA
Mechanical characteristics	
Endurance	Mechanical endurance: 8500($\leq 100A$) 7000(125A) Electrical endurance: 3000
Protection class	IP40 (Installed in DB box) IP20 (Installed directly)
Mechanical shock resistance	30g, 3 shocks, lasting 11ms
Rated ambient temperature	30°C
Operating ambient temperature	-20°C ~ + 60°C
Storage temperature	-40°C ~ + 70°C
Installation Features	
Maximum wiring capacity	25mm ² ($\leq 63A$) 35mm ² ($> 63A$)
Maximum torque	Rated current 6-32A: 2.5N.m Rated current 40-63A: 3N.m
Installation	35mm DIN rail
Line incoming type	Top or bottom

Overall Dimensions

Unit: mm



HDB3VR-63



HDB3VR-100

HDB9PLE

Residual Current Operated Circuit Breaker (RCBO)

Standard: IEC/EN 61009-1
Electronic type: AC
Breaking Capacity: 6000A

Sensitivity: 10mA, 30mA



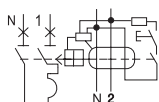
Function

HDB9PLE electronic type residual current operated circuit breakers combine the following functions:

- Protection of circuits against overload currents
- Protection against short-circuit currents
- Protection against indirect contacts
- Additional protection for users against direct contacts (10mA, 30mA)
- Protection for electrical installations against insulation faults (fire hazard, etc.)
- Isolation

Order Information

Type	Rating (A)	Breaking Capacity (kA)	Sensitivity (mA)	Reference
				C curve
1P+N	6	6	10	HDB9PLEN40C6L
	10	6	10	HDB9PLEN40C10L
	16	6	10	HDB9PLEN40C16L
	20	6	10	HDB9PLEN40C20L
	25	6	10	HDB9PLEN40C25L
	32	6	10	HDB9PLEN40C32L
	40	6	10	HDB9PLEN40C40L
	6	6	30	HDB9PLEN40C6S
	10	6	30	HDB9PLEN40C10S
	16	6	30	HDB9PLEN40C16S
	20	6	30	HDB9PLEN40C20S
	25	6	30	HDB9PLEN40C25S
	32	6	30	HDB9PLEN40C32S
	40	6	30	HDB9PLEN40C40S



Technical Data

RCBO		HDB9PLE Residual Curent Operated Circuit Breaker					
Electrical Features	Standard Certificate	IEC/EN 61009-1 CB,CE,TUV					
	Electronic Type	AC					
	Poles	1P+N					
	Rated Current In (A)	6, 10, 16, 20, 25, 32, 40					
	Insulation Voltage Ui	500V					
	Breaking Capacity	6000A					
	Sensitivity	10mA, 30mA					
	Tripping Curve (see following tripping curve pictures)						
C Curve: the magnetic release operates between 5 and 10 In							
Mechanical Features	Electrical Durability	10000 times					
	Mechanical Durability	20000 times					
	Protection Degree	IP20					
	Tropicalization	Treatment 2					
	Ambient Temperature	-25°C~+70°C					
	Rated Current, A	6	10	16,20	25	32	40
Cross-sectional area of conductor mm ²	1	1.5	2.5	4	6	10	

HDB9PLE

Residual Current Operated Circuit Breaker (RCBO)

Standard: IEC/EN 61009-1

Electronic type: AC

Breaking Capacity: 6000A

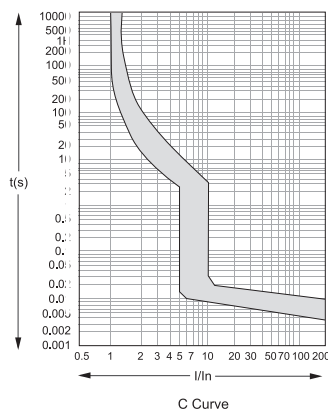
Sensitivity: 10mA, 30mA



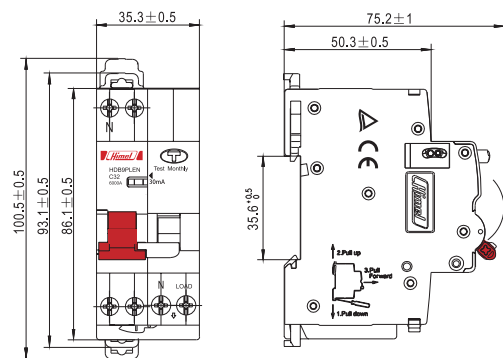
Technical Data

RCBO	HDB9PLE Residual Current Operated Circuit Breaker			
Connection	6 - 40A, up to 25mm ² cables			
Electrical Features	Rated Current(A)	Screw	Rated Torque (Nm)	Limiting Torque (Nm)
	6-40	M4	2.0	3.0
Mounting	35mm Din-Rail			

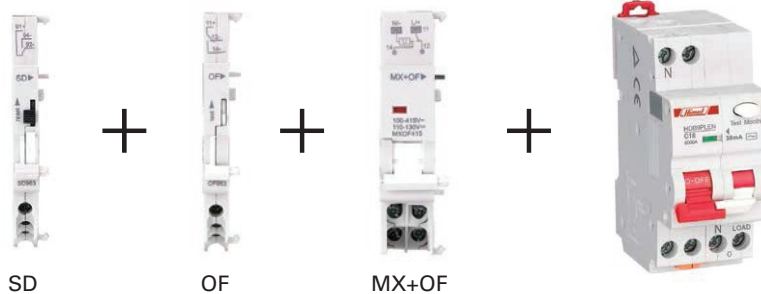
Tripping Curve



Overall Dimensions



Accessories



HDY3N Power Surge Protector

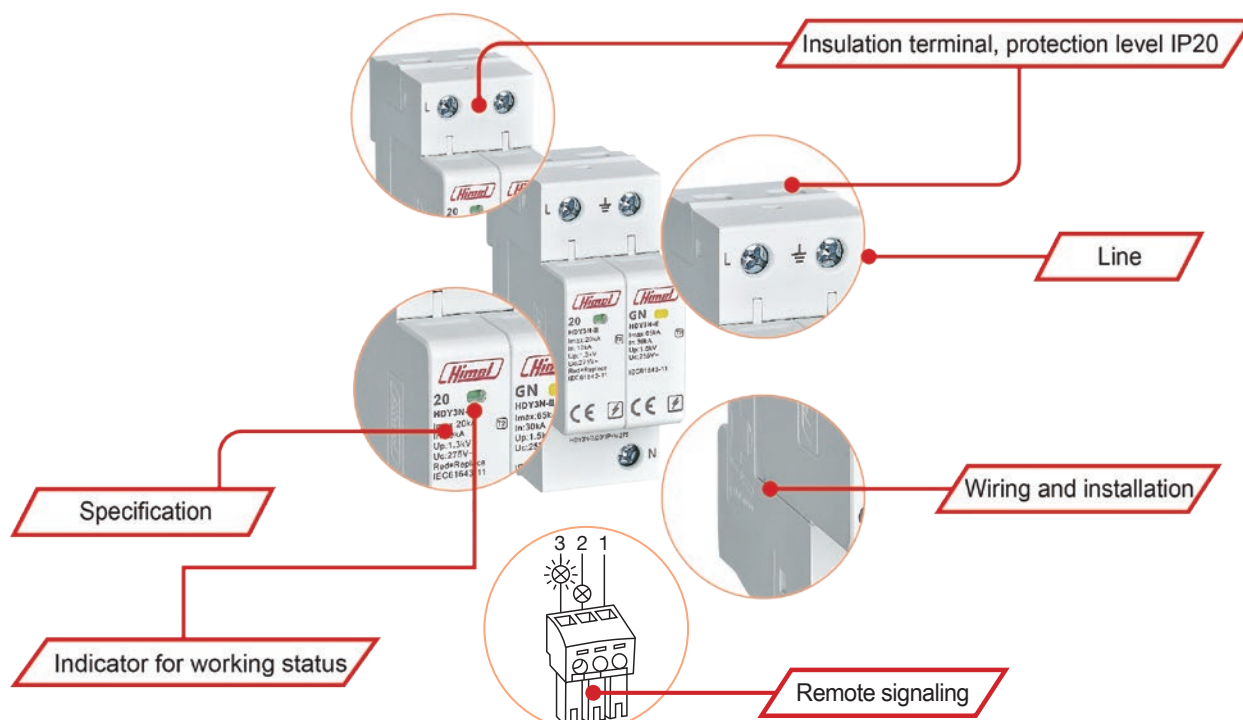
Standard: IEC61643-11



Main features

Rated voltage U_0	230V					
Poles	1P, 3P, 1P+N, 3P+N					
Protection rating	II					
Waveform	8/20us					
Product model	HDY3N-20	HDY3N-40	HDY3N-65	HDY3N-80	HDY3N-120	HDY3N-160
Nominal discharge current I_n	10kA	20kA	30kA	40kA	60kA	80kA
Maximum discharge current I_{max}	20kA	40kA	65kA	80kA	120kA	160kA
Maximum allowable backup fuse strength(gL)	50A	100A	125A	160A	200A	250A
Maximum continuous operating voltage U_c	275/385/440V	275/385/440V	275/385/440V	275/385/440V	275/385/440V	275/385/440V
Protection level U_p	1.3/1.6/1.8kV	1.5/1.8/2.0kV	1.6/2.0/2.2kV	1.8/2.2/2.2kV	2.2/2.5/2.5kV	3.2/3.3/3.4kV
Response time	$\leq 25ns$					
Operating state indicator	Green: normal; red: fault					
Terminal wiring capacity	Solid line $\leq 35mm^2$, soft line 2.5-25mm 2 ,torque 3.5N.m					
Optional accessories	Available (YX remote signaling)					

Product Detail Display



HDY3N Power Surge Protector

Standard: IEC61643-11

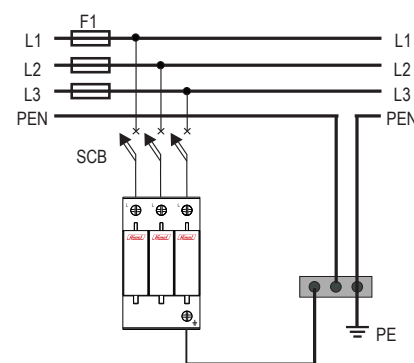
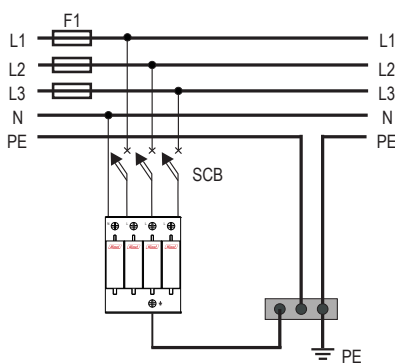
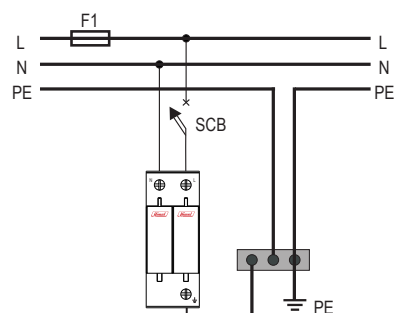


HDY3N Selection Guide

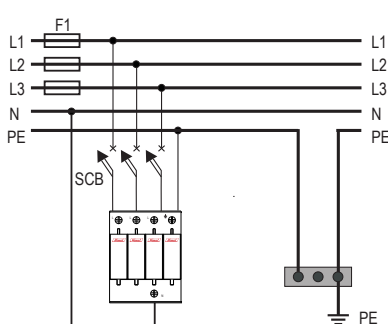
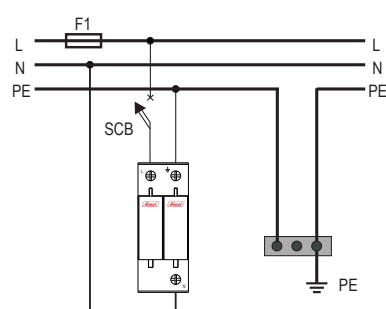
Product name	Protection Type	Maximum discharge current	Poles	Maximum continuous voltage	Accessories
HDY3N	Default	40	5	275	YX
HDY3N	Default: II	20: 20kA 40: 40kA 65: 65kA 80: 80kA 120: 120kA 160: 160kA	1: 1P 3: 3P 5: 1P+N 6: 3P+N 7: 3 mode 8: 7 mode	Default: 385V 275: 275V 440: 440V	YX: Remote signaling Default: No remote signaling

HDY3N Wiring Diagram

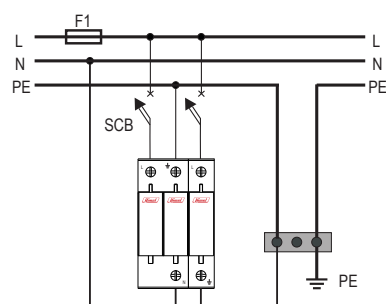
TN-S System Installation Diagram



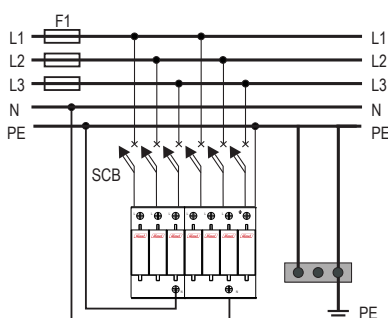
TT System Installation Diagram



3 mode (single phase) installation diagram



7 mode (Three phase) installation diagram



HDY3N Power Surge Protector

Standard: IEC61643-1



Order Information

Protection Type	Maximum discharge current	Poles	Maximum continuous voltage					
			275		385		440	
Default	20	1P	HDY3N201275		HDY3N201		HDY3N201440	
		3P	HDY3N203275	HDY3N203275YX	HDY3N203	HDY3N203YX	HDY3N203440	HDY3N203440YX
		1P+N	HDY3N205275	HDY3N205275YX	HDY3N205	HDY3N205YX	HDY3N205440	HDY3N205440YX
		3P+N	HDY3N206275	HDY3N206275YX	HDY3N206	HDY3N206YX	HDY3N206440	HDY3N206440YX
		3 Mode	HDY3N207275	HDY3N207275YX	HDY3N207	HDY3N207YX	HDY3N206440	HDY3N206440YX
		7 Mode	HDY3N208275	HDY3N208275YX	HDY3N208	HDY3N208YX	HDY3N208440	HDY3N208440YX
	40	1P	HDY3N401275		HDY3N401		HDY3N401440	
		3P	HDY3N403275	HDY3N403275YX	HDY3N403	HDY3N403YX	HDY3N403440	HDY3N403440YX
		1P+N	HDY3N405275	HDY3N405275YX	HDY3N405	HDY3N405YX	HDY3N405440	HDY3N405440YX
		3P+N	HDY3N406275	HDY3N406275YX	HDY3N406	HDY3N406YX	HDY3N406440	HDY3N406440YX
		3 Mode	HDY3N407275	HDY3N407275YX	HDY3N407	HDY3N407YX	HDY3N406440	HDY3N406440YX
		7 Mode	HDY3N408275	HDY3N408275YX	HDY3N408	HDY3N408YX	HDY3N408440	HDY3N408440YX
	65	1P	HDY3N651275		HDY3N651		HDY3N651440	
		3P	HDY3N653275	HDY3N653275YX	HDY3N653	HDY3N653YX	HDY3N653440	HDY3N653440YX
		1P+N	HDY3N655275	HDY3N655275YX	HDY3N655	HDY3N655YX	HDY3N655440	HDY3N655440YX
		3P+N	HDY3N656275	HDY3N656275YX	HDY3N656	HDY3N656YX	HDY3N656440	HDY3N656440YX
		3 Mode	HDY3N657275	HDY3N657275YX	HDY3N657	HDY3N657YX	HDY3N656440	HDY3N656440YX
		7 Mode	HDY3N658275	HDY3N658275YX	HDY3N658	HDY3N658YX	HDY3N658440	HDY3N658440YX
	80	1P	HDY3N801275		HDY3N801		HDY3N801440	
		3P	HDY3N803275	HDY3N803275YX	HDY3N803	HDY3N803YX	HDY3N803440	HDY3N803440YX
		1P+N	HDY3N805275	HDY3N805275YX	HDY3N805	HDY3N805YX	HDY3N805440	HDY3N805440YX
		3P+N	HDY3N806275	HDY3N806275YX	HDY3N806	HDY3N806YX	HDY3N806440	HDY3N806440YX
		3 Mode	HDY3N807275	HDY3N807275YX	HDY3N807	HDY3N807YX	HDY3N807440	HDY3N807440YX
		7 Mode	HDY3N808275	HDY3N808275YX	HDY3N808	HDY3N808YX	HDY3N808440	HDY3N808440YX
	120	1P	HDY3N1201275		HDY3N1201		HDY3N1201440	
		3P	HDY3N1203275	HDY3N1203275YX	HDY3N1203	HDY3N1203YX	HDY3N1203440	HDY3N1203440YX
		1P+N	HDY3N1205275	HDY3N1205275YX	HDY3N1205	HDY3N1205YX	HDY3N1205440	HDY3N1205440YX
		3P+N	HDY3N1206275	HDY3N1206275YX	HDY3N1206	HDY3N1206YX	HDY3N1206440	HDY3N1206440YX
		3 Mode	HDY3N1207275	HDY3N1207275YX	HDY3N1207	HDY3N1207YX	HDY3N1207440	HDY3N1207440YX
		7 Mode	HDY3N1208275	HDY3N1208275YX	HDY3N1208	HDY3N1208YX	HDY3N1208440	HDY3N1208440YX
	160	1P	HDY3N1601275		HDY3N1601		HDY3N1601440	
		3P	HDY3N1603275	HDY3N1603275YX	HDY3N1603	HDY3N1603YX	HDY3N1603440	HDY3N1603440YX
		1P+N	HDY3N1605275	HDY3N1605275YX	HDY3N1605	HDY3N1605YX	HDY3N1605440	HDY3N1605440YX
		3P+N	HDY3N1606275	HDY3N1606275YX	HDY3N1606	HDY3N1606YX	HDY3N1606440	HDY3N1606440YX
		3 Mode	HDY3N1607275	HDY3N1607275YX	HDY3N1607	HDY3N1607YX	HDY3N1607440	HDY3N1607440YX
		7 Mode	HDY3N1608275	HDY3N1608275YX	HDY3N1608	HDY3N1608YX	HDY3N1608440	HDY3N1608440YX

Note: 3 mode is combination of 1P & 1P+N, 7 mode is combination of 3P & 3P+N

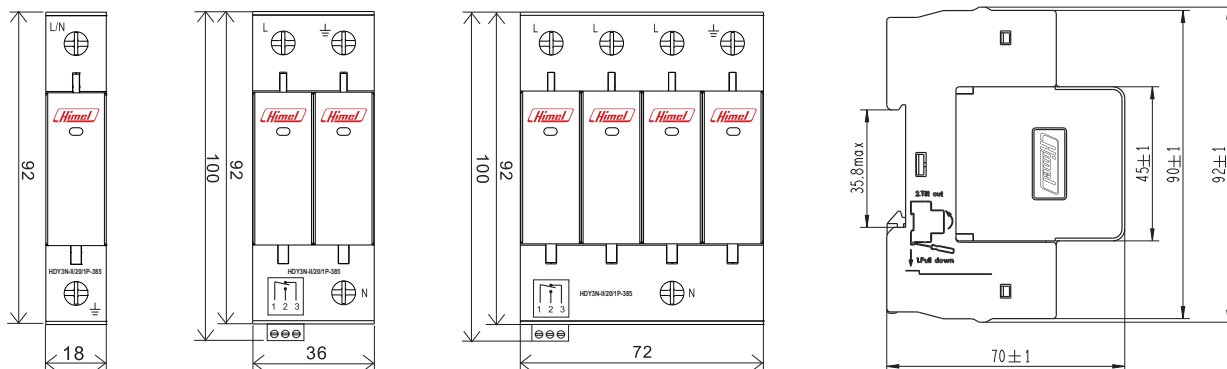
HDY3N Power Surge Protector

Standard: IEC61643-1

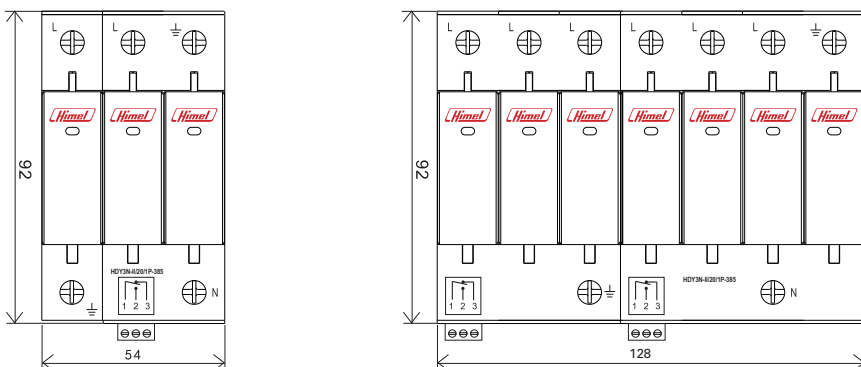


HDY3N Installation Dimension

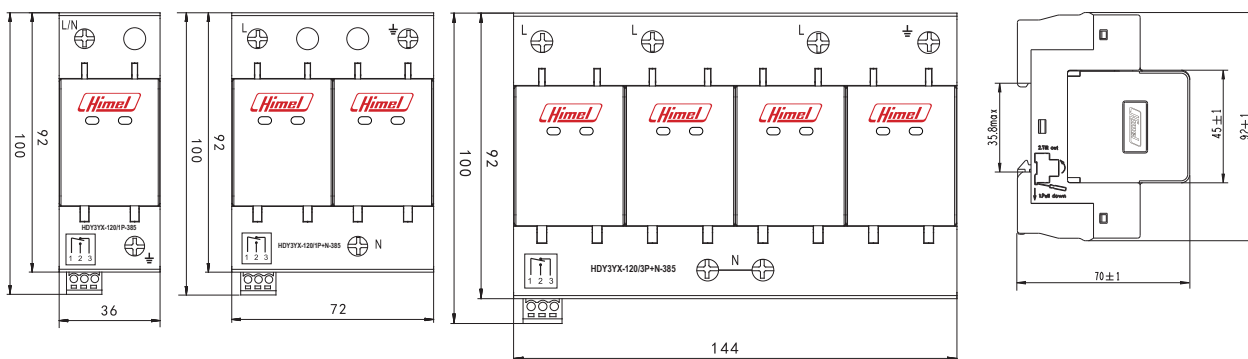
HDY3N-20/40/65



HDY3N-20/40/65 - 3 mode (Single Phase) / 7 mode (Three Phase)



HDY3N-80/120



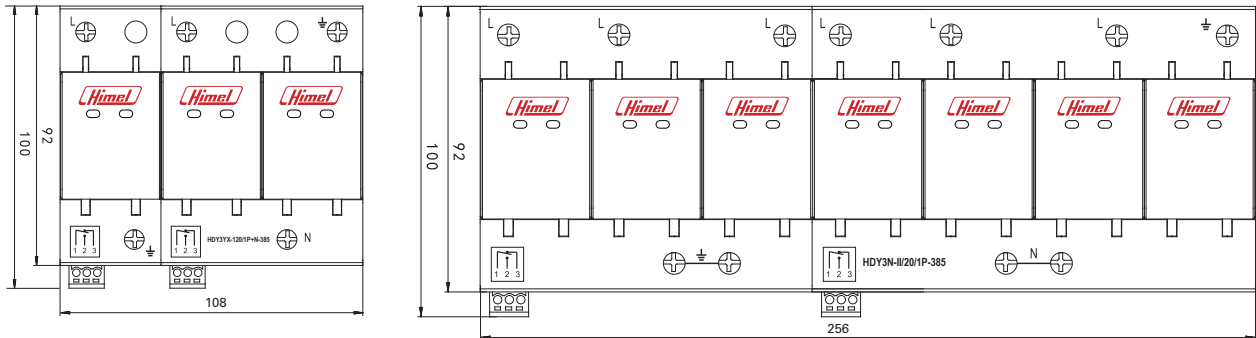
HDY3N Power Surge Protector

Standard: IEC61643-1

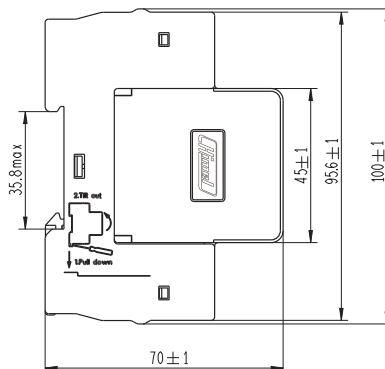
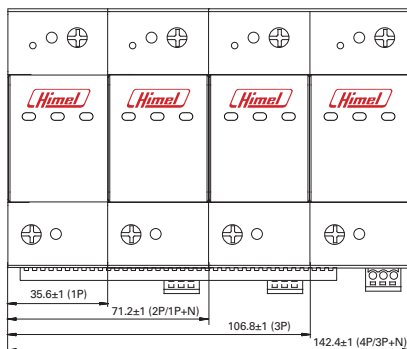


HDY3N Installation Dimension

HDY3N-80/120 - 3 mode (Single Phase) / 7 mode (Three Phase)



HDY3N-160kA



HDCH8S Modular Contactor

Standard: IEC 61095



Function

HDCH8S Modular Contactor provide:

- Automatic control on equipment in buildings
- Switch on or Switch off lighting or other equipments

Order Information



Pole	Current (A)	Contacts	Reference
2P	16	2NO	HDCH8S16220
		2NC	HDCH8S16202
		1NO 1NC	HDCH8S16211
	20	2NO	HDCH8S20220
		2NC	HDCH8S20202
		1NO 1NC	HDCH8S20211
	25	2NO	HDCH8S25220
		2NC	HDCH8S25202
		1NO 1NC	HDCH8S25211
	40	2NO	HDCH8S40220
		2NC	HDCH8S40202
		1NO 1NC	HDCH8S40211
	63	2NO	HDCH8S63220
		2NC	HDCH8S63202
		1NO 1NC	HDCH8S63211
4P	16	4NO	HDCH8S16440
		4NC	HDCH8S16404
		2NO 2NC	HDCH8S16422
		3NO 1NC	HDCH8S16431
	20	4NO	HDCH8S20440
		4NC	HDCH8S20404
		2NO 2NC	HDCH8S20422
		3NO 1NC	HDCH8S20431
	25	4NO	HDCH8S25440
		4NC	HDCH8S25404
		2NO 2NC	HDCH8S25422
		3NO 1NC	HDCH8S25431
	40	4NO	HDCH8S40440
		4NC	HDCH8S40404
		2NO 2NC	HDCH8S40422
		3NO 1NC	HDCH8S40431
	63	4NO	HDCH8S63440
		4NC	HDCH8S63404
		2NO 2NC	HDCH8S63422
		3NO 1NC	HDCH8S63431

HDCH8S Modular Contactor

Standard: IEC 61095



Technical information

Parameter			Item	16	20	25	40	63
Standard				IEC 61095				
Rated Current In(A)		AC-7a		16	20	25	40	63
		AC-7b		6	7	8.5	15	20
Conventional Free Air Thermal Current Ith(A)				25	25	25	63	63
Rated Insulation Voltage Ui(V)				500				
Rated Voltage Ue(V)				250 400				
Ambient Temperature				-5℃~ 40℃				
Making and Breaking Capacity				1.5le 8le				
Rated Voltage Ue(V)				250 400				
Main Contacts		2P		1NO1NC, 2NO, 2NC				
		4P		2NO2NC, 3NO1NC, 4NO, 4NC				
Controlled power (kW)	AC-7a	230V		3.5	4.5	5.5	9	14
		400V		6.5	8	10	16	25
	AC-7b	230V		1.4	1.6	2	3.5	4.5
		400V		2.4	2.8	3.4	6	8
Electrical durabilities				10×10 ⁴				
Mechanical durabilities				100×10 ⁴				
Operation frequency /1h				100				
Coil Voltage Us(V)				AC 230V 50/60Hz				
Wiring Ability (mm ²)	Control circuit	Rigid wire		1.5~2.5 mm ²		2×1.5mm ²		
		Flexible wire		1.5~2.5 mm ²		2×2.5mm ²		
	Main circuit	Rigid wire		1.5×6mm ²		6×2.5mm ²		
		Flexible wire		1~4 mm ²		6~16mm2		

HDCH8S Modular Contactor

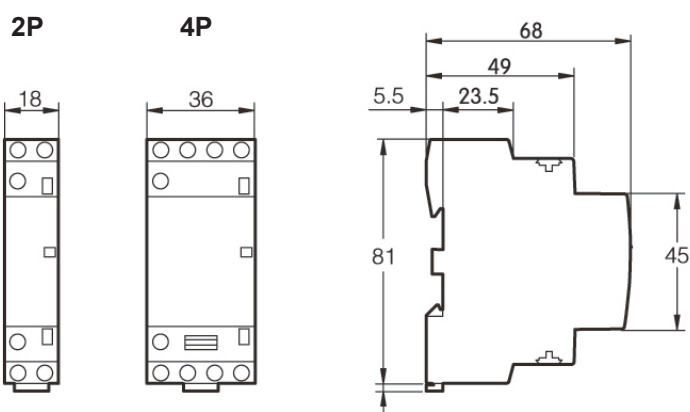
Standard: IEC 61095



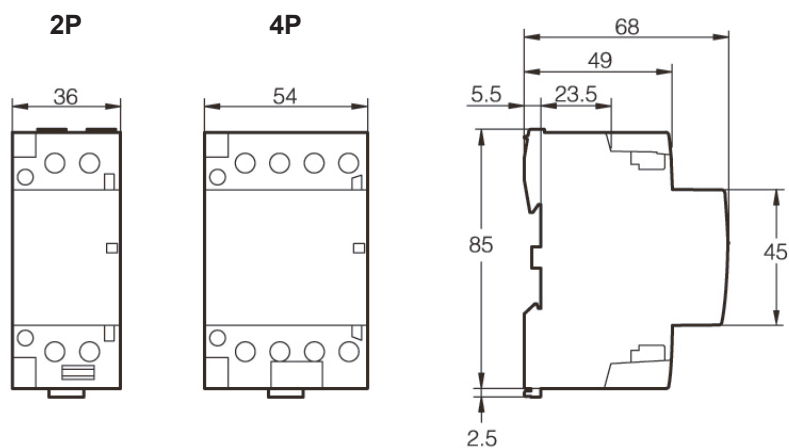
Overall Dimensions

HDCH8S 16-63A

HDCH8S, 16-25A



HDCH8S, 40-63A



HKG816 Series Digital Times Switch

Standard: IEC 61095

Function

HKG816 Series Digital Time Switch provide:

- Rated AC frequency of 50Hz, rated AC control voltage 230V or below.
- Be used as time control components in automatic control circuit, according to the scheduled time to turn-on or off the circuits.

Order Information

Cover	Output loops	Rated control voltage	Reference
Non-transparent cover	16-on-16-off	AC:230V	HKG816A230
Transparent cover	16-on-16-off	AC:230V	HKG816B230



HKG816A

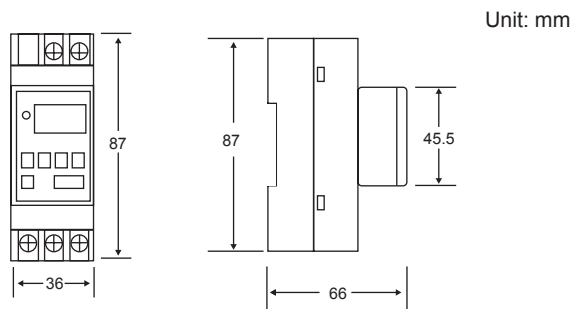


HKG816B

Technical Data

Standard	IEC 60947-5-1
Control time	Setting value range from 1min to 168 hrs Operate by daily or weekly
Using mode	AC-15: 240V/3A; 400V/1.9A
Control power	≤6kW
Rated control voltage	230VAC
Rated thermal cur.	10A
Accuracy	≤2s/day
Mechanical life	≥1X10 ⁶
Electrical life	≥1X10 ⁵
Power loss	≤4.5W
Temp.	-5℃~+40℃
Display mode	Digital LED display
Time-set Mode	Digital Keyswitch setting
Battery	Inner rechargable battery
Install Mode	Din rail mounted

Overall Dimensions



HDPZ50 Series Consumer Box

Standard: IEC/EN 60670

CE

Function

HDPZ50 series Consumer Box provide:

- Protection against overload
- Protection against over voltage
- Protection against leakage

Order Information



Material	Installation	No.of loop	Reference
Metal box&Plastic Cover	Surface installation	6	HDPZ50M6
		8	HDPZ50M8
		12	HDPZ50M12
		16	HDPZ50M16
		20	HDPZ50M20
		24	HDPZ50M24
	Flush installation	6	HDPZ50R6
		8	HDPZ50R8
		12	HDPZ50R12
		16	HDPZ50R16
		20	HDPZ50R20
		24	HDPZ50R24
Material	Installation	No.of loop	Reference
Full Plastic (fire-retardancy)	Surface installation	4	HDPZ50PM4IP30F
		6	HDPZ50PM6IP30F
		8	HDPZ50PM8IP30F
		12	HDPZ50PM12IP30F
		15	HDPZ50PM15IP30F
		18	HDPZ50PM18IP30F
		24	HDPZ50PM24IP30F
		36	HDPZ50PM36IP30F
	Flush installation	4	HDPZ50PR4IP30F
		6	HDPZ50PR6IP30F
		8	HDPZ50PR8IP30F
		12	HDPZ50PR12IP30F
		15	HDPZ50PR15IP30F
		18	HDPZ50PR18IP30F
		24	HDPZ50PR24IP30F
		36	HDPZ50PR36IP30F
Full Plastic (Non fire-retardancy)	Surface installation	4	HDPZ50PM4NF
		6	HDPZ50PM6NF
		8	HDPZ50PM8NF
		12	HDPZ50PM12NF
		15	HDPZ50PM15NF
		18	HDPZ50PM18NF
		24	HDPZ50PM24NF
		36	HDPZ50PM36NF
	Flush installation	4	HDPZ50PR4NF
		6	HDPZ50PR6NF
		8	HDPZ50PR8NF
		12	HDPZ50PR12NF
		15	HDPZ50PR15NF
		18	HDPZ50PR18NF
		24	HDPZ50PR24NF
		36	HDPZ50PR36NF

HDPZ50 Series Consumer Box

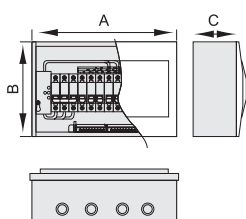
Standard: IEC/EN 60670



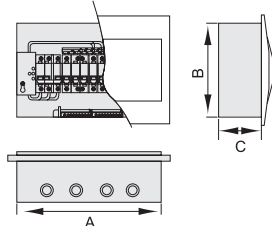
Technical Data

Type	HDPZ50	HDPZ50P
Material	Box: Metal, Cover: Plastic	Full Plastic
Fire-resistancy	Fire-resistancy	Optional
Protection grade	IP30	
Rated operation voltage	230/400V	
Rated insulated voltage	500V	
Rated operating current	100A	
Withstand current	6kA	

Surface installation



Flush installation



Overall Dimensions

Unit:mm

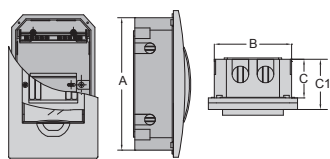
HDPZ50

Metal box&Plastic Cover	Surface installation		Flush installation		Thickness
	A	B	A	B	C
6	171	220	163	200	90
8	207	220	199	200	90
12	279	220	272	200	90
16	351	220	343	200	90
20	423	220	413	200	90
24	303	383	282	364	90

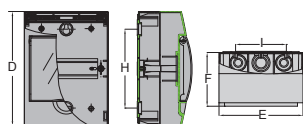
HDPZ50P

Full plastic Loop number	Dimension for hidden installation				Dimension for surface installation					
	Height	Width	Thickness		Height	Width	Thickness	Installation Dimension		
	A	B	C	C1	D	E	F	H	I	
4	200	114	61	78	200	112	91	138	-	
6	200	150	61	78	200	147	96	144	-	
8	200	186	61	78	200	183	96	144	-	
12	196	258	61	78	200	255	96	144	-	
15	198	311	61	78	200	310	96	144	-	
18	216	363	61	78	218	362	96	162	290	
24	310.5	261	74.5	92	324	270	102	230	207	
36	414.5	261	70.5	88	459	270	102	418	207	

Flush installation



Surface installation



HDC3 AC Contactors

Standard: IEC60947-4



HDC3 is Himel 3 series range of contactors designed for Motor Control AC3 applications up to 630A .

HDC3 contactors are applicable to AC power systems 50Hz or 60Hz with rated operating voltage up to 690V.

HDC3 contactors can be combined with HDR3s thermal overload relays to form magnetic motor starters up to 630A.

- ◆ 5 frame sizes: 25, 38, 95, 225, 630A
- ◆ Wide range of operating voltage from 70%~120% Us
- ◆ Full range of accessories for any type of application
- ◆ Can be combined with HDR3s thermal overload relay



Selection Code

Range name	Current specification	Reversible	Auxiliary contact	Coil voltage	Coil frequency
HDC3	06	N	11	M	5
06-95A	06: 06A 09: 09A 12: 12A 18: 18A 25: 25A 32: 32A 38: 38A 40: 40A 50: 50A 65: 65A 80: 80A 95: 95A	N: reversible AC Contact with mechanical interlock Default: AC Contact	06A: 01: 1NC 10: 1NO 09-95A: 11: 1NO+1NC	B: 24V C: 36V E: 48V F: 110V S: 127V M: 220/230V U: 240V Q: 380/400V L: 415V X: 440V	5: 50Hz 7: 50/60Hz
120-630A	120: 120A 160: 160A 185: 185A 225: 225A 265: 265A 330: 330A 400: 400A 500: 500A 630: 630A	Default: AC Contact	22: 2NO+2NC	F: 110V S: 127V M: 220V Q: 380V EHE7: 48-130V KUE7: 100-250V URE7: 250-500V	5: 50Hz 7: 50/60Hz

Note: 265-630A only wide coil voltage ratings available (EHE7 , KUE7 , URE7)

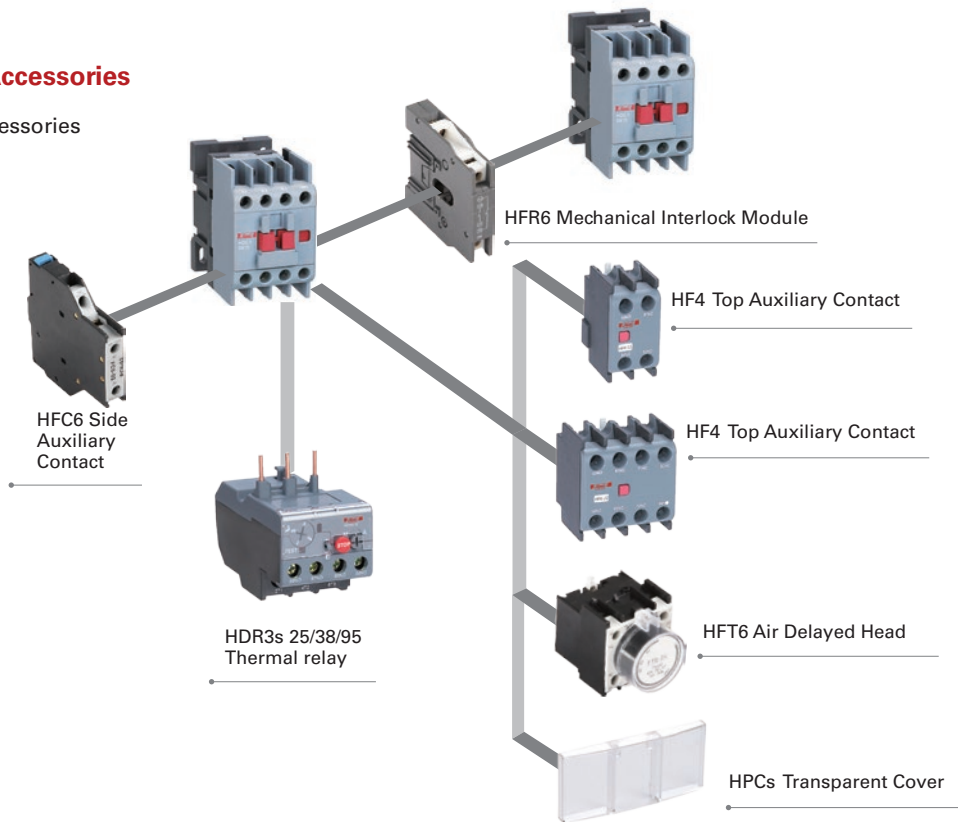
HDC3 AC Contactors

Standard: IEC60947-4

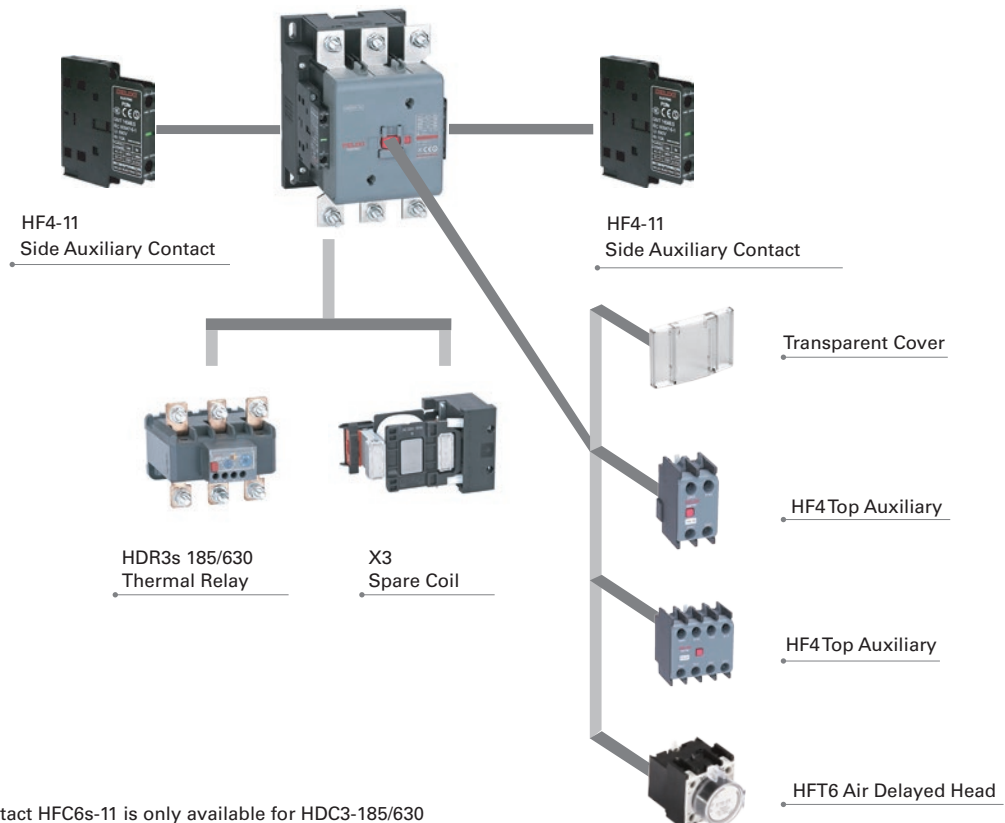


Overview of Accessories

HDC3 09-95A Accessories



HDC3 120-630A Accessories



Note: Side Auxiliary Contact HFC6s-11 is only available for HDC3-185/630

HDC3 AC Contactors

Standard: IEC60947-4



Technical Parameter

AC Contactors			HDC3												
Contactor model			06	09	12	18	25	32	38	40	50	65	80	95	
Main circuit characteristics															
Conversional thermal current(Ith)	380/400V	A	25	25	25	32	40	50	50	60	80	80	125	125	
Rated operating current (Ie)		A	6	9	12	18	25	32	38	40	50	65	80	95	
Rated operating power(Pe) AC-3	220/230V	kW	1.1	2.2	3	4	5.5	7.5	11	11	15	18.5	22	25	
	380/400V	kW	2.2	4	5.5	7.5	11	15	18.5	18.5	22	30	37	45	
	660/690V	kW	3	5.5	7.5	10	15	18.5	18.5	30	33	37	45	45	
Mechanical endurance		10k times	1200				1000			900			650		
Electrical endurance	AC-3	10k times	110					90					65		
Operation frequency		Times/hour	1200					600							
Number of poles			3P												
Rated insulation voltage(Ui)		V	690												
Maximum rated operating voltage(Ue)		V	660/690												
Certificate			CB, CE, SEMKO												
Coil															
Rated control circuit voltage(Us)	50Hz	V	24, 36, 48, 110, 127, 220/230, 240, 380/400, 415, 440												
	50/60Hz	V	24,36, 48, 110, 127, 220/230, 240, 380/400, 415, 440												
Allowable control circuit voltage(Us)	Operation	V	AC:70%~120% (vertical installation)												
	Drop-out	V	AC: 20%-75%												
Coil power	Actuation	VA	50	60		70			200			200			
	Holding	VA	6-9.5	6-9.5		6-9.5			15-20			15-20			
Main circuit terminal wiring capability															
Soft wire	1 wire	mm²	1...4				1.5...6			2.5..25			4...50		
	2 wire	mm²	1...4				1.5...6			2.5..16			4...25		
Hard wire	1 wire	mm²	1...4				1.5...6		1.5...10		2.5..25			4...50	
	2 wire	mm²	1...4				1.5...6		1.5...6		2.5..10			4...25	
Auxiliary contact															
Conventional thermal current(Ith)		A	10												
Rated operating voltage	AC	V	380												
	DC	V	220												
Rated control capacity	AC-15	VA	380												
	DC-13	W	33												

HDC3 AC Contactors

Standard: IEC60947-4



Main technical parameter

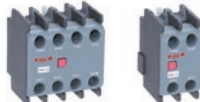
Contactor Model			HDC3								
Contactor model			120	160	185	225	265	330	400	500	630
Main Circuit Characteristic											
Conversional thermal current(Ith)	380/400V	A	200	200	275	275	315	380	450	630	700
Rated operating current (Ie)		A	120	160	185	225	265	330	400	500	630
Rated Operating Power(Pe) AC-3	220/230V	kW	37	45	55	63	75	90	132	160	200
	380/400V	kW	55	75	90	110	132	160	220	250	355
	660/690V	kW	80	100	110	110	165	220	300	350	450
Mechanical Durabilities		10k times	600								
Electrical Durabilities	AC-3	10k times	120				80			60	
Operation Frequency		Times/hour	1200		600						
Number of Poles			3P								
Rated Insulation Voltage(Ui)		V	1000								
Maximum Rated Operating Voltage(Ue)		V	690								
Certificate			CB, CE, SEMKO								
Coil											
Rated Control Circuit Voltage(Us)	50Hz	V	110V,127V,220V,380V								
	50/60Hz	V	48-130V, 100-250V, 250-500V (AC-DC universal)								
Allowable Control Circuit Voltage(Us)	Operation	V	AC:85%-110% (vertical installation); AC-DC: 85%-110%								
	Drop-out	V	AC: 20%-75%; AC-DC: 10%-70%								
Coil Power	Actuation	VA	500			600			800		
	Holding	VA	78			18.5			18.5		
Main Circuit terminal Wiring Capability											
Soft Wire	1 wire	mm²	10~240								
	2 wire	mm²	10~75								
Hard Wire	1 wire	mm²	10-150					50-240			
	2 wire	mm²	10-75					50-240			
Auxiliary Contact											
Conventional Thermal Current(Ith)		A	10								
Rated Operating Voltage	AC	V	380								
	DC	V	220								
Rated Control Capacity	AC-15	VA	380								
	DC-13	W	33								

HDC3 AC Contactors

Standard: IEC60947-4



Technical Parameter

AC Contactors	HDC3													
Contactor model		06	09	12	18	25	32	38	40	50	65	80	95	
Thermal relay														
HDR3s thermal relay 6-95 A		HDR3s-25					HDR3s-38			HDR3s-95				
		P16 : 0.1-0.16A P25 : 0.16-0.25A 25 : 17-25A					32 : 23-32A 38 : 30-40A			40 : 30-40A 50 : 37-50A 93 : 80-93A				
Independent installation base		HJRS1D25J					HJRS1D38J			HJRS1D93J				
Accessories														
Top auxiliary contact		2 Poles : HF4-11, HF4-20 , HF4-02 4 Poles : HF4-22, HF4-31 , HF4-13 , HF4-40 , HF4-40												
Side auxiliary contact		2 Poles : HFC6-11 , HFC6-20 , HFC6-02												
Air delayed head		Making time delay : HFT6-20 , HFT6-22 , HFT6-24 Breaking time delay : HFT6-30 , HFT6-32 , HFT6-34												
Mechanical interlock		HDC3 09-32 horizontal installation : HRF6-32 HDC3 40-95 horizontal installation : HRF6-95												
Spare coil		HX3 + Contact AF + Ue + Hz EXP : HX395M7 , HDC3 Coil 80-95A 220/230V 50/60Hz												

HDC3 AC Contactors

Standard: IEC60947-4



Technical Parameter

AC Contactors	HDC3									
Contactor model HDC3		120	160	185	225	265	330	400	500	630
Thermal relay										
HDR3s thermal relay 120-630 A		HDR3s-185 95 : 75-95A 135 : 105-135A 185 : 150-185A				HDR3s-630 200F : 145-200A 250F : 180-250A 630F : 460-630A				
Accessories										
Top auxiliary contact		2 Poles : HF4-11, HF4-20 , HF4-02 4 Poles : HF4-22, HF4-31 , HF4-13 , HF4-40 , HF4-40								
Side auxiliary contact		2 Poles : HFC4-11								
Air delayed head		Making time delay : HFT6-20 , HFT6-22 , HFT6-24 Breaking time delay : HFT6-30 , HFT6-32 , HFT6-34								
Mechanical interlock		HFR6-32H, HFR6-95H, HFR4-225, HFR4-400, HFR4-630								
Spare coil		EXP : HX3225M, HDC3 Coil 120-225A 220VAC 50Hz HX3225KUE7, HDC3 Coil 120-225A 100-250VAC/DC 50/60Hz								

HDC3 AC Contactors

Standard: IEC60947-4



Order Information

HDC3 06-95A

Motor power (AC-3, 380V,Kw)	Ie (A)	Auxiliary contact		Reference No
2.2	6	1	0	HDC30610*
		0	1	HDC30601*
4	9	1	1	HDC30911*
5.5	12	1	1	HDC31211*
7.5	18	1	1	HDC31811*
11	25	1	1	HDC32511*
15	32	1	1	HDC33211*
18.5	38	1	1	HDC33811*
18.5	40	1	1	HDC34011*
22	50	1	1	HDC35011*
30	65	1	1	HDC36511*
37	80	1	1	HDC38011*
45	95	1	1	HDC39511*

HDC3-N 06-95A (Reversible AC contactor)

Motor power (AC-3, 380V,Kw)	Ie (A)	Auxiliary contact		Reference No
1.5	9	1	1	HDC309N11*
2.2	12	1	1	HDC312N11*
3	18	1	1	HDC318N11*
4	25	1	1	HDC325N11*
5.5	32	1	1	HDC332N11*
5.5	38	1	1	HDC338N11*

HDC3 120-630A

Motor power (AC-3, 380V,Kw)	Ie (A)	Auxiliary contact		Reference No
55	120	2	2	HDC312022*
75	160	2	2	HDC316022*
90	185	2	2	HDC318522*
110	225	2	2	HDC322522*
132	265	2	2	HDC326522*
160	330	2	2	HDC333022*
220	400	2	2	HDC340022*
250	500	2	2	HDC350022*
355	630	2	2	HDC363022*

HDC3 AC Contactors

Standard: IEC60947-4



HDC3 6-95A & 120-630A Contactor Accessories

Transparent cover

Contactor Type	Reference
HDC3-6~38A/HDZ3	HPCs38
HDC3-40~65A	HPCs65
HDC3-80~95A	HPCs95

Auxiliary contact

Installation position	Pole	Auxiliary Contact NO	NC	Contact point layout	Reference
Top	2	0	2		HF4 02
		1	1		HF4 11
		2	0		HF4 20
	4	0	4		HF4 04
		1	3		HF4 13
		2	2		HF4 22
		3	1		HF4 31
		4	0		HF4 40
	Side	0	2		HFC6 02
		1	1		HFC6 11
		2	0		HFC6 20



Air Delayed Head

Installation Position	Delay type	Wiring diagram	Delay range	Reference
Top	Making time-delay		0.1-3s	HFT6 20
			0.1-30s	HFT6 22
			10-180s	HFT6 24
	Breaking time-delay		0.1-3s	HFT6 30
			0.1-30s	HFT6 32
			10-180s	HFT6 34



Mechanical Interlock

Horizontal installation		
Interlock method	Contact type	Reference
Mechanical interlock with electrical interlock	HDC3-9~32	HFR6 32 H
	HDC3-40~95	HFR6 95 H



HDC3 AC Contactors

Standard: IEC60947-4



Spare Coil

HX3 9-95A

Contactor	Spear coil	Coil voltage	Coil Frequency
HDC3 06A	HX306*	B : 24V C : 36V E : 48V F : 110V S : 127V M : 220/230V; U : 240V; Q : 380/400V; L : 415V; X : 440V	5 : 50Hz 7 : 50/60Hz
HDC3 09-18A	HX31811*		
HDC3 25-38A	HX33811*		
HDC3 40-65A	HX365*		
HDC3 80-95A	HX395*		



HX3 120-630A

Contactor	Spear coil	Coil voltage	Coil Frequency
HDC3 120-225A ac coil	HX3225*	F : 110V S : 127V M : 220V Q : 380V	Default : 50Hz
HDC3 120-225A ac/dc coil	HX3225*	EHE7 : 48~130V KUE7 : 100~250V URE7 : 250~500V	7 : 50/60Hz
HDC3265-400A ac/dc coil	HX3400*		
HDC3 500-630A ac/dc coil	HX3630*		



Note : "*" is relavent coil voltakge & frequency

HDC3 AC Contactors

Standard: IEC60947-4



Motor Power

Motor power of HDC3 (AC-4)

Product	Ith(A)	AC-4			
		Ie(A)		Pe(kW)	
		380/400V	660/690	380/400V	660/690
HDC3-06	25	2.6	1	1.1	0.75
HDC3-09	25	3.5	1.5	1.5	1.1
HDC3-12	25	5	2	2.2	1.5
HDC3-18	32	7.7	3.8	3.3	3
HDC3-25	40	8.5	4.4	4	3.7
HDC3-32	50	12	7.5	5.4	5.5
HDC3-38	50	14	8.9	5.5	6
HDC3-40	60	18.5	9	7.5	7.5
HDC3-50	80	24	12	11	10
HDC3-65	80	28	14	15	11
HDC3-80	125	37	17.3	18.5	15
HDC3-95	125	44	21.3	22	18.5

Motor power of HDC3 (Reversible AC contactor)

Product	Ith(A)	AC-4			
		Ie(A)		Pe(kW)	
		380/400V	660/690	380/400V	660/690
HDC3-09	25	3.5	1.5	1.5	1.1
HDC3-12	25	5	2	2.2	1.5
HDC3-18	32	7.7	3.8	3.3	3
HDC3-25	40	8.5	4.4	4	3.7
HDC3-32	50	12	7.5	5.4	5.5
HDC3-38	50	14	8.9	5.5	6
HDC3-40	60	18.5	9	7.5	7.5
HDC3-50	80	24	12	11	10
HDC3-65	80	28	14	15	11
HDC3-80	125	37	17.3	18.5	15
HDC3-95	125	44	21.3	22	18.5

HDC3 AC Contactors

Standard: IEC60947-4



Motor Power

Motor power of HDC3 (AC-4)

Product	Ith(A)	AC-4						Intermittent work; rated operating frequency at 40% load factor
		Ie(A)			Pe(kW)			
		220/230V	380/400V	660/690V	220/230V	380/400V	660/690V	AC-4
HDC3-120	200	54	54	48	18.5	30	50	220/380V : 120times/h 660V : 30times/h
HDC3-160		68	68	57	22	37	55	
HDC3-185	275	81	81	65	30	45	63	
HDC3-225		96	96	85	30	55	80	
HDC3-265	315	117	117	105	37	63	100	
HDC3-330	380	125	125	115	40	75	110	
HDC3-400	450	150	150	135	45	90	132	
HDC3-500	630	175	175	150	55	100	150	
HDC3-630	700	225	225	200	75	110	185	

Motor power of HDC3 (Reversible AC contactor)

Reversible Product (Horizontal installation)	Ith(A)	Ie(A) AC-3		Pe(kW) AC-3	
		380V	660V	380V	660V
HDC3-120N	200	120	86	55	80
HDC3-160N		160	107	75	100
HDC3-185N	275	185	107	90	110
HDC3-225N		225	118	110	110
HDC3-265N	315	265	170	132	165
HDC3-330N	380	330	225	160	220
HDC3-400N	450	400	303	220	300
HDC3-500N	630	500	353	250	350
HDC3-630N	700	630	400	355	450



HDC3 AC Contactors

Standard: IEC60947-4



Star-Delta Stater

Contactor (HDC3-09~95)

Max. Starting Frequency: 30 times/h; Max. Starting Time: 30s						
Class AC-3 50Hz 3-Phase Electromotor Delta Connection		Contactor			Thermal Relay	
		Straight Connection	Delta Connection	Star Connection		
		KM2	KM3	KM1		
In (A)	IrD (A)	Type	Type	Type	Type	Setting Range (A)
3.5	2	HDC3-09	HDC3-09	HDC3-09	HDR3s-25	1.8~2.5
	3	HDC3-09	HDC3-09	HDC3-09	HDR3s-25	2.5~3.6
6.6	4	HDC3-09	HDC3-09	HDC3-09	HDR3s-25	3.5~4.8
8.5	5	HDC3-09	HDC3-09	HDC3-09	HDR3s-25	4.5~6.3
11.5	6	HDC3-09	HDC3-09	HDC3-09	HDR3s-25	5~7
15.5	9	HDC3-12	HDC3-12	HDC3-09	HDR3s-25	9~12
18.5	11	HDC3-18	HDC3-18	HDC3-12	HDR3s-25	11~15
	13	HDC3-18	HDC3-18	HDC3-12	HDR3s-25	11~15
	16	HDC3-25	HDC3-25	HDC3-18	HDR3s-25	14~18
	22	HDC3-25	HDC3-25	HDC3-18	HDR3s-25	18~25
	26	HDC3-32	HDC3-32	HDC3-25	HDR3s-38	23~32
	35	HDC3-40	HDC3-40	HDC3-32	HDR3s-38	30~40
	40	HDC3-50	HDC3-50	HDC3-40	HDR3s-95	37~50
	47	HDC3-65	HDC3-65	HDC3-50	HDR3s-95	37~50
105	58	HDC3-80	HDC3-80	HDC3-65	HDR3s-95	55~70
138	78	HDC3-95	HDC3-95	HDC3-80	HDR3s-95	63~80

HDC3 AC Contactors

Standard: IEC60947-4



Normal Installation And Operation Conditions

Standards

- ◆ EC 60947-1 General rules
- ◆ IEC 60947-4-1 Contactors
- ◆ IEC 60947-5-1 Relays

Pollution class

- ◆ Class 3

Ambient temperature

- ◆ In normal operation, the ambient temperature range is between -5°C and $+40^{\circ}\text{C}$, but average value in 24h is no more than $+35^{\circ}\text{C}$;
- ◆ Storage temperature: $-25^{\circ}\text{C} \sim +55^{\circ}\text{C}$; a short time (24h) is allowed with maximum $+70^{\circ}\text{C}$

Altitude

- ◆ Altitude at normal installation position does not exceed 2000m

Humidity

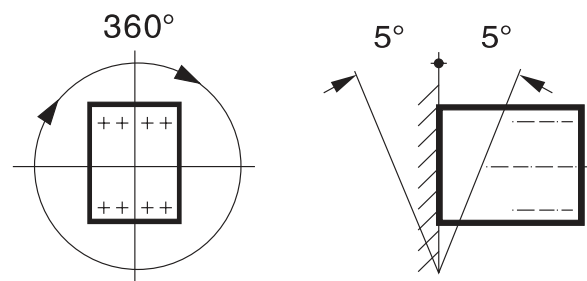
- ◆ The atmospheric relative humidity does not exceed 50% when the highest ambient temperature is $+40^{\circ}\text{C}$. It is allowed to have a relative higher humidity under lower temperature, e.g. up to 90% at $+20^{\circ}\text{C}$.
- ◆ For occasional dew due to the temperature change, preventive measures shall be taken.

Product protection grade

- ◆ IP20

Installation Conditions

- ◆ Installation type: III
- ◆ Installation position: should be installed in the absence of a significant shock and vibration place. The installation site shall be vertical, and inclination at all directions shall not exceed $\pm 5^{\circ}$. When the coil control voltage is not lower than 85%Us, the inclination should be no more than $\pm 30^{\circ}$



Temperature Derating

Ambient temperature($^{\circ}\text{C}$)	55 $^{\circ}\text{C}$	60 $^{\circ}\text{C}$	65 $^{\circ}\text{C}$	70 $^{\circ}\text{C}$
Correction factor	1	0.93	0.875	0.75

Altitude Derating

Altitude(m)	2000	3000	4000
Rated impulse withstand voltage coefficient	1	0.88	0.78
Rated working current coefficient	1	0.92	0.9

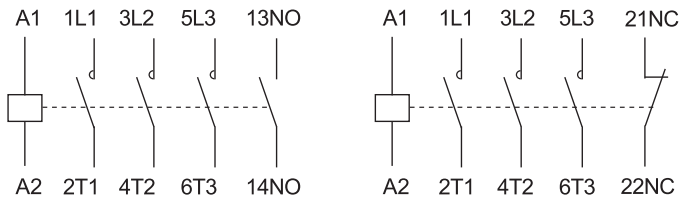
HDC3 AC Contactors

Standard: IEC60947-4

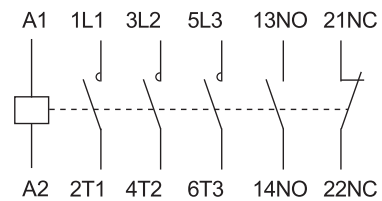


Wiring Diagram

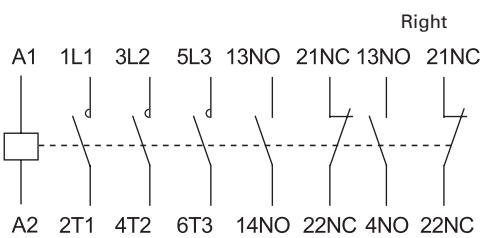
HDC3 06 with 1NO or 1NC Auxiliary Contact



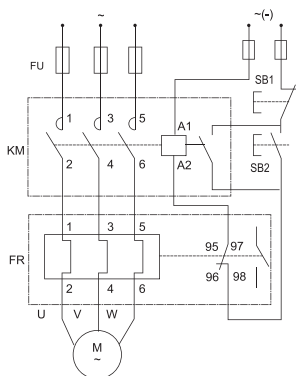
HDC3 09~95 with 1NO+1NC Auxiliary Contact



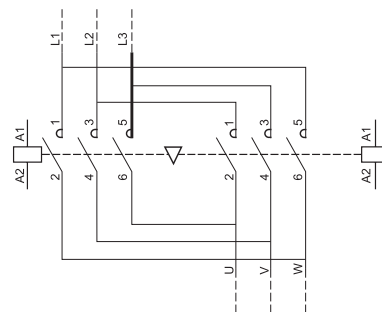
HDC3 185~630 with 2NO+2NC Auxiliary Contact



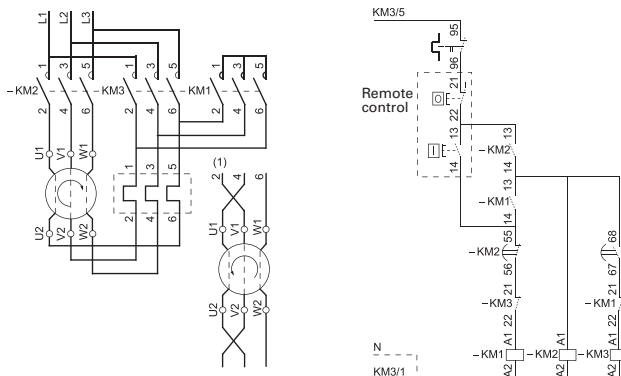
DOL Control



Reversible Control



Star-Delta Control



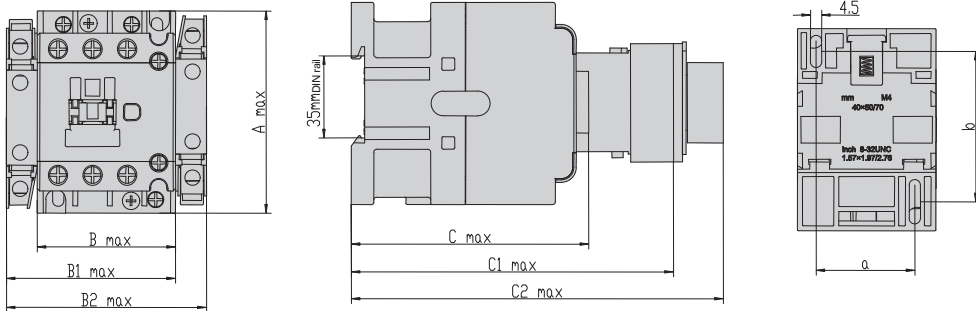
HDC3 AC Contactors

Standard: IEC60947-4

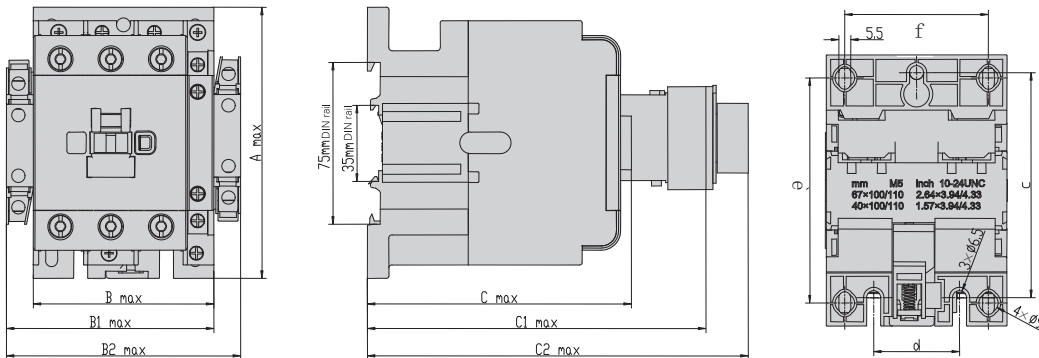


Installation Dimensions

HDC3 06-38A



HDC3-40-95A



Overall Dimension of HDC3 06-95A AC Contactor

Model	Amax	Bmax	B1max	B2max	Cmax	C1max	C2max
HDC3-06	74.5	45.5	-	-	75	107	132
HDC3-09, 12, 18	74.5	45.5	58	71	82.5	114.5	139.5
	74.5	45.5	58	71	85.5	117.5	142.5
HDC3-25, 32, 38	83	56.5	69	82	97	129	154
HDC3-40, 50, 65	127.5	74.5	88	101	117	148.5	173.5
HDC3-80,95	127.5	85.5	99	112	125.5	157	182

Plate Installation Dimension of HDC3 06-95A AC Contactor

Model	a	b	c	d	e	f
HDC3-06	35	50/60	-	-	-	-
HDC3-09, 12, 18	35	50/60	-	-	-	-
HDC3-25, 32, 38	40	50/70	-	-	-	-
HDC3-40, 50, 65	-	-	105	40	100/110	59
HDC3-80,95	-	-	105	40	100/110	67

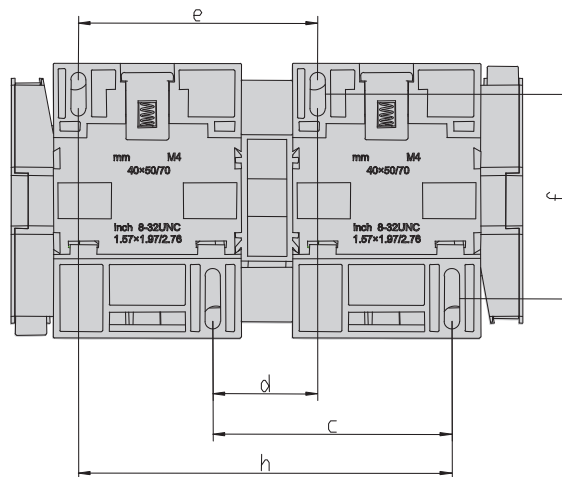
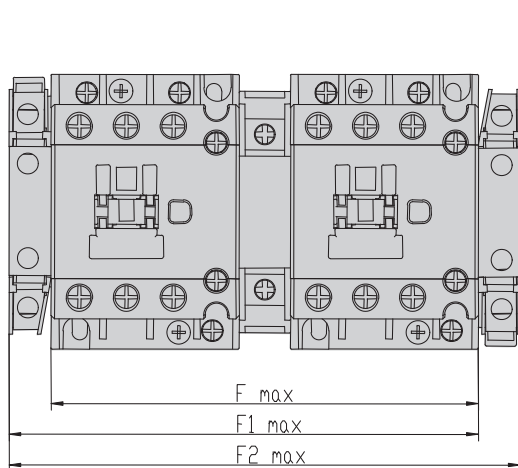
HDC3 AC Contactors

Standard: IEC60947-4

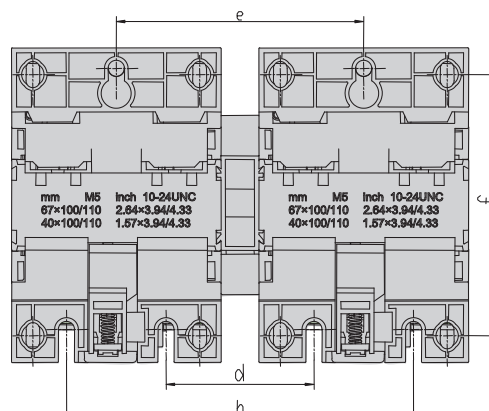
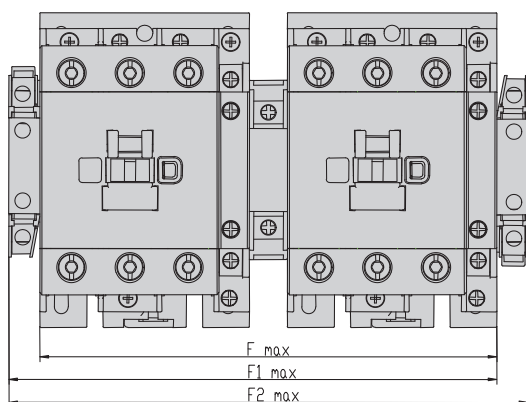


Installation Dimensions

HDC3-N 09-38A



HDC3-N 40-95A



Overall Dimension of HDC3-N 09-95A Directional AC Contactor

Model	Fmax	F1max	F2max	c	d	e	f	h
HDC3-09N, 12N, 18N	107	120	131	60	25	60	50/60	95
HDC3-25N, 32N, 38N	129	142	153	71	31.5	71	50/60	111.5
HDC3-40N, 50N, 65N	163	180	193	-	50	90	100/110	130
HDC3-80N,95N	186	202	215	-	60	100	100/110	140

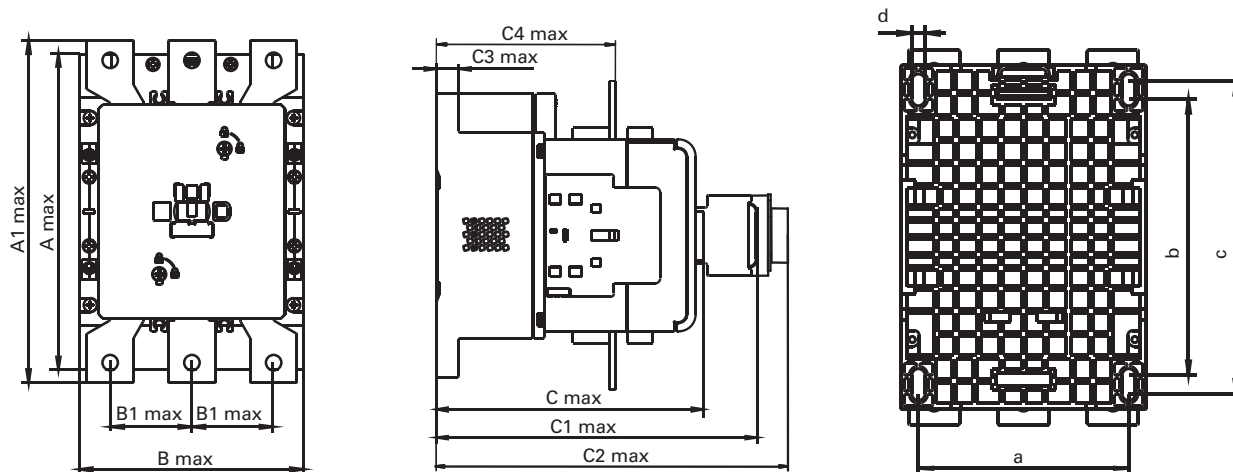
HDC3 AC Contactors

Standard: IEC60947-4



Installation Dimensions

HDC3 185-630



Model	Amax	A1max	Bmax	B1max	Cmax	C1max	C2max	C3max	C4max	a	b	c	d
HDC3-120	170	185	120	45	161	193	198	13.5	108.5	104.5	136.5	154.5	6.5
HDC3-160	170	185	120	45	161	193	198	13.5	108.5	104.5	136.5	154.5	6.5
HDC3-185	170	185	120	45	161	193	198	13.5	108.5	104.5	136.5	154.5	6.5
HDC3-225	170	185	120	45	161	193	198	13.5	108.5	104.5	136.5	154.5	6.5
HDC3-265	211.5	201.5	154	53.5	208	240	245	17	142	129.5	174.7	189.5	9
HDC3-330	211.5	201.5	154	53.5	208	240	245	17	142	129.5	174.7	189.5	9
HDC3-400	211.5	201.5	154	53.5	208	240	245	17	142	129.5	174.7	189.5	9
HDC3-500	216.5	138.5	170.5	62	231.5	263.5	268.5	18	158	131.5	181.5	191.5	10
HDC3-630	216.5	138.5	170.5	62	231.5	263.5	268.5	18	158	131.5	181.5	191.5	10

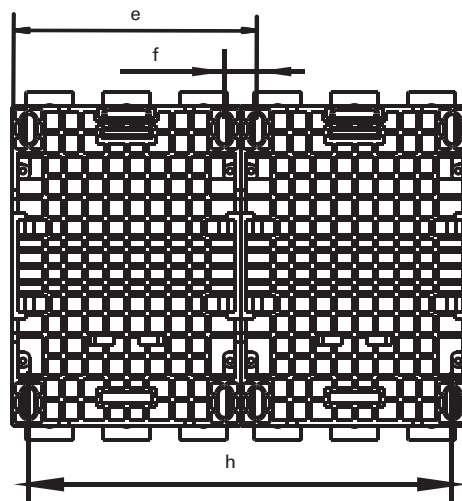
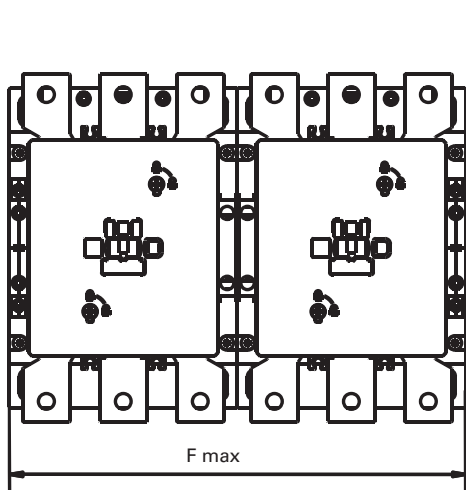
HDR3s Thermal Overload Relays

Standard: IEC60947-4



Installation Dimensions

HDC3 185-630 (Reversible AC contactor)



Model	Fmax	e	f	h
HDC3-120N	241.5	130	18.5	224.5
HDC3-160N	241.5	130	18.5	224.5
HDC3-185N	241.5	130	18.5	224.5
HDC3-225N	241.5	130	18.5	224.5
HDC3-265N	309.5	168.5	27.5	270
HDC3-330N	309.5	168.5	27.5	270
HDC3-400N	309.5	168.5	27.5	270
HDC3-500N	339.5	190	40.5	281
HDC3-630N	339.5	190	40.5	281

HDR3s Thermal Overload Relays

Standard: IEC60947-4



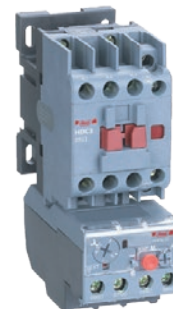
Range Presentation

HDR3s is Himel 3 series range of thermal overload relays designed to provide protection against overload, phase loss and current imbalance.

HDR3s thermal overload relays can be combined with HDC3 contactors into motor starter.

Features

- ◆ Frame Rating Current: 25, 38, 93, 185, 630A
- ◆ Setting Current: 0.1-630 A



Selection Code

Range name	Frame size	Setting currents
HDR3s	25	P16
HDR3s	25: 25A	P16: 0.1- 0.16A 25: 17 - 25A
	38: 38A	32: 25 - 32A 40: 32 - 38A
	93: 93A	10: 7.0- 10A 93: 80 - 93A
	185: 185A	65: 48-65A 185: 150-185A
	630: 630A	200F: 145-200A 630F: 460-630A

Technical Parameters

Thermal overload relay	HDR3s				
Main technical parameters					
Temperature compensation	-5°C~+40°C				
HDR3s Thermal Relay	25	38	93	185	630
Trip level	10A		10		10A
Rated insulation voltage(Ui) V	660V			690V	
Base	HJRS1D25J	HJRS1D36J	HJRS1D93J	-	-
Certificate	CB, CE, SEMKO				
Product features					
Overload protection	Yes				
Phase-failure protection	Yes				
Manual reset	Yes				
Automatic reset	Yes				
Stop button	Yes				
Test button	Yes				
Trip indication	Yes				
Tolerance on slope in any direction	±5°				
Auxiliary circuit 1NO+1NC					
Utilization category	AC-15			DC-13	
Rated frequency Hz	50/60		50/60		
Rated insulation voltage (Ui) V	500		500		500
Rated operating voltage (Ue) V	230		400		230
Rated operating current Ie A	1.57		0.90		0.14
Conventional thermal current Ith A	5		5		5
Wiring	1mm ²				

HDR3s Thermal Overload Relays

Standard: IEC60947-4



Order Information

Frame Current (A)	Setting Current(A) code		Recommended HRT16	Recommended Contactor	Reference
25	0.1-0.16	P16	4	HDC3 09-38 HJX2 4P 09-40	HDR3s25P16
	0.16-0.25	P25	4		HDR3s25P25
	0.25-0.4	P4	4		HDR3s25P4
	0.4-0.63	P63	4		HDR3s25P63
	0.63-1	1	4		HDR3s251
	1-1.6	1P6	4		HDR3s251P6
	1.6-2.5	2P5	6		HDR3s252P5
	2.5-4	4	10		HDR3s254
	4-6	6	16		HDR3s256
	5.5-8	8	20		HDR3s258
	7-10	10	20		HDR3s2510
	9-13	13	25	HDC3 12-38 HJX2 4P 12-40	HDR3s2513
	12-18	18	35	HDC3 18-38 HJX2 4P 25-40	HDR3s2518
	17-25	25	50	HDC3 25-38 HJX2 4P 25-40	HDR3s2525
38	23-32	32	63	HDC3 32-38 HJX2 4P 25-40	HDR3s3832
	30-40	40	80	HDC3 32-38 HJX2 4P 40	HDR3s3840
93	7.0-10	10	20	HDC3 40-95	HDR3s9310
	9.0-13	13	25		HDR3s9313
	12-18	18	35		HDR3s9318
	17-25	25	50		HDR3s9325
	23-32	32	63		HDR3s9332
	30-40	40	80		HDR3s9340
	37-50	50	100	HDC3 50-95 HJX24P 50-95	HDR3s9350
	48-65	65	100		HDR3s9365
	55-70	70	125	HDC3 65-95 HJX2 4P 65-95	HDR3s9370
	63-80	80	125	HDC3 80-95 HJX2 4P 80-95	HDR3s9380
	80-93	93	160	HDC3 95 HJX2 4P 80-95	HDR3s9393



HDR3s Thermal Overload Relays

Standard: IEC60947-4



Frame Current (A)	Setting Current(A) code		Recommended HRT16	Recommended Contactor	Reference
185	48-65	65	100	HDC3 120~185 HJX2F 4P 115-185	HDR3s18565
	55-70	70	100		HDR3s18570
	63-80	80	100		HDR3s18580
	75-95	95	125		HDR3s18595
	90-115	115	200		HDR3s185115
	105-135	135	200		HDR3s185135
	120-150	150	200		HDR3s185150
	130-160	160	250		HDR3s185160
	150-185	185	250		HDR3s185185
630	145-200	200F	400	HDC3 225~630 HJX2F 4P 225-630	HDR3s630200F
	180-250	250F	400		HDR3s630250F
	230-320	320F	500		HDR3s630320F
	290-400	400F	630		HDR3s630400F
	350-480	480F	800		HDR3s630480F
	460-630	630F	800		HDR3s630630F



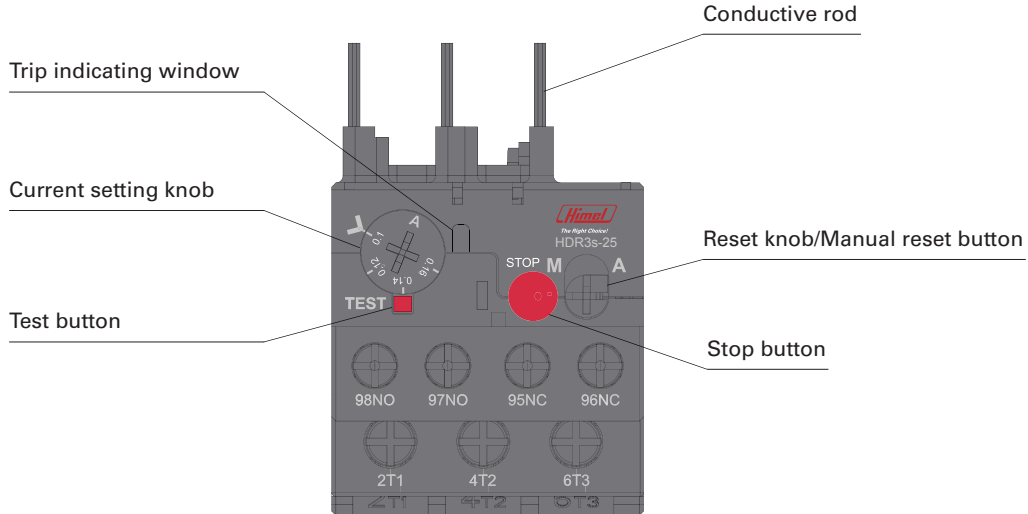
Base	
Adapted contactor	Reference No
HDR3s-25	HJRS1D25J
HDR3s-38	HJRS1D36J
HDR3s-93	HJRS1D93J

HDR3s Thermal Overload Relays

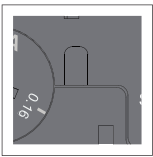
Standard: IEC60947-4



Overview

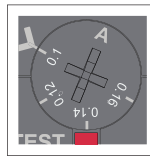


1, Trip indicating window



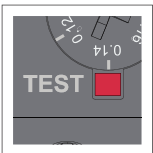
When the thermal overload relay tripped, the trip indicating window will show orange color, which means "tripped"

2, Current setting knob



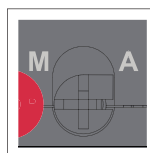
Set the adjusting current for the electric motor

3, Test button



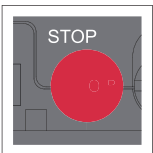
Simulate "trip"(make NO, NC contacts act) to check the control circuit

4, Reset knob/Manual reset button



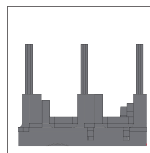
Reset knob:
When the wedge points to M: Manual reset
When the wedge points to A: Automatic reset
Manual reset button:
When the thermal overload relay tripped(indicating window shows orange color), push this button to reset the relay.

5, Stop button



Make the NC contacts act, but not affect the NO contacts. When push STOP button, the control circuit will be open, and motor stops working.

6, Conductive rod



Can be inserted into main circuit terminal of the contactor. The square rod increase the contact surface, and make the wire connection more tight.

HDR3s Thermal Overload Relays

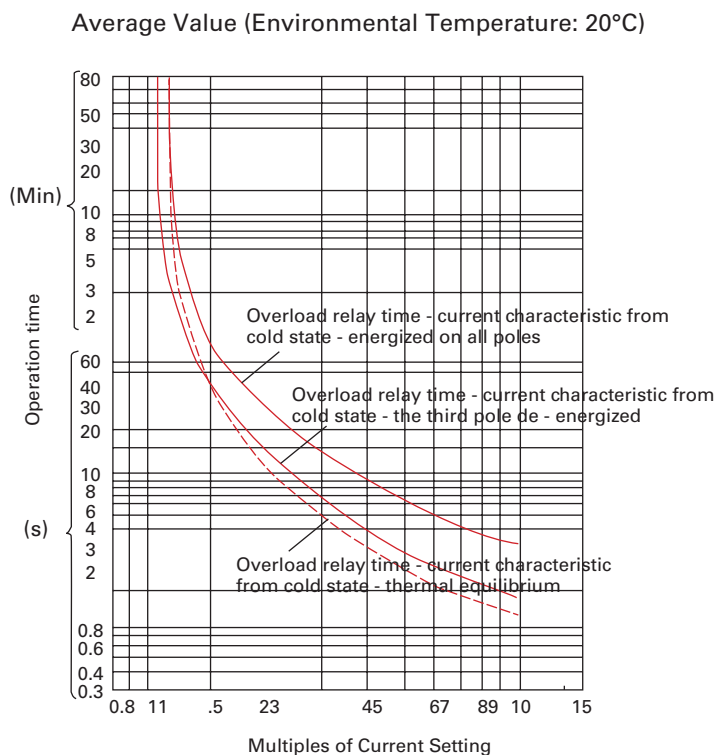
Standard: IEC60947-4



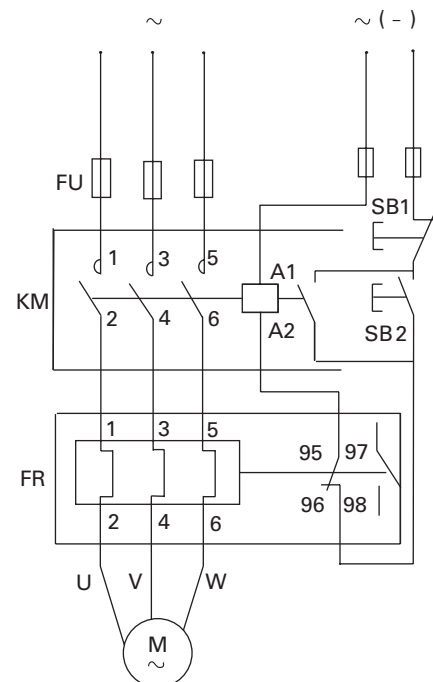
Tripping Characteristics

No.	Multiples of Current Setting	Tripping Time		Initial Condition	Reference Ambient Air Temperature
		Trip class 10A	Trip class 10		
Limits of operation of time-delay overload relays when energized on all poles					
1	1.05	Non-tripping within 2h	Non-tripping within 2h	Cold State	+20°C
2	1.2	Tripping within 2h	Tripping within 2h	After No.1 Test (Thermal Equilibrium)	
3	1.5	<2min	<4min	After No.1 Test (Thermal Equilibrium)	
4	7.2	2s<Tp≤10s	4s<Tp≤10s	Cold State	+20°C
Limits of operation of three-pole thermal overload relays when energized on two poles only					
When the value of current flowing in two poles and the third pole de-energized					
1	1.0 0.9	Non-tripping within 2h	Non-tripping within 2h	Cold State	+20°C
2	1.15 0	Tripping within 2h	Tripping within 2h	After No.1 Test (Thermal Equilibrium)	

Tripping Characteristics



Wiring Diagram



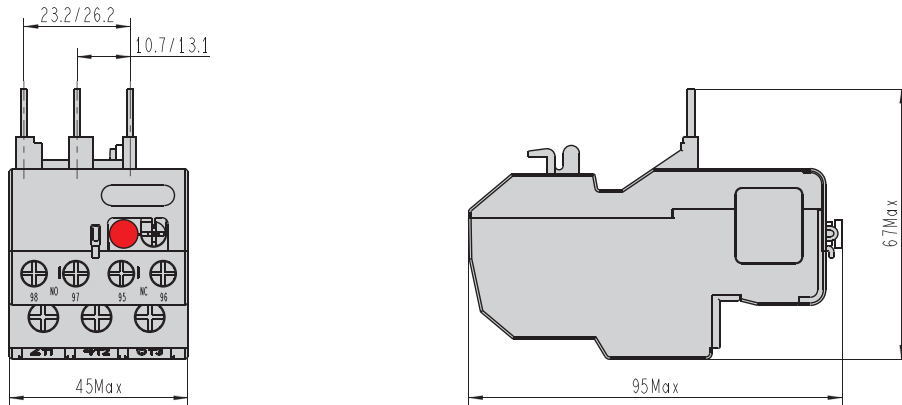
HDR3s Thermal Overload Relays

Standard: IEC60947-4

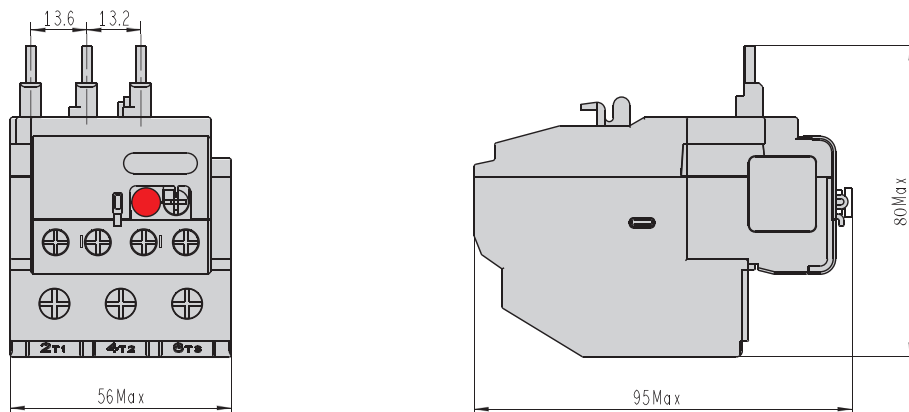


Overall Dimension

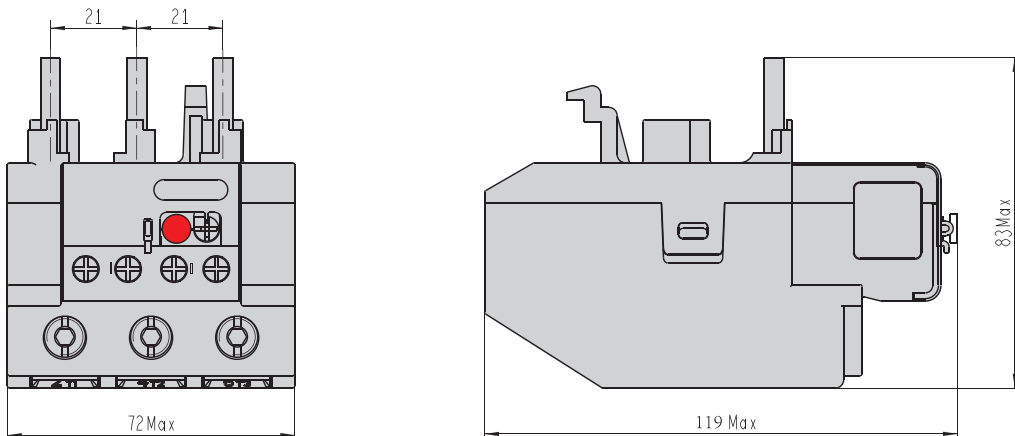
Overall Dimensional Drawing of HDR3s-25/Z



Overall Dimensional Drawing of HDR3s-38/Z



Overall Dimensional Drawing of HDR3s-93/Z



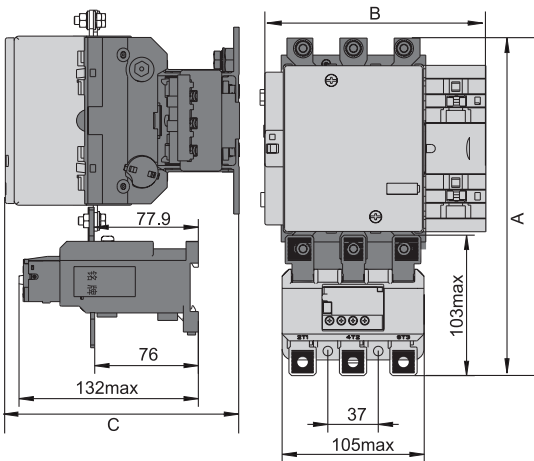
HDR3s Thermal Overload Relays

Standard: IEC60947-4

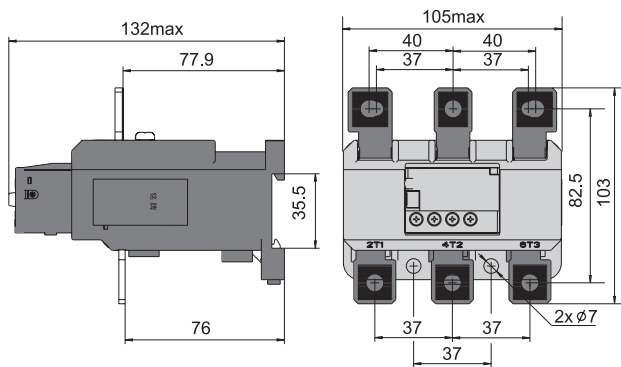


Installation Instruction

HDR3s 185 Assembly Installation

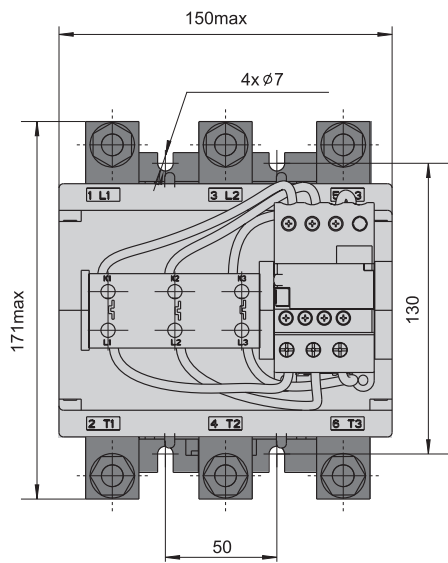
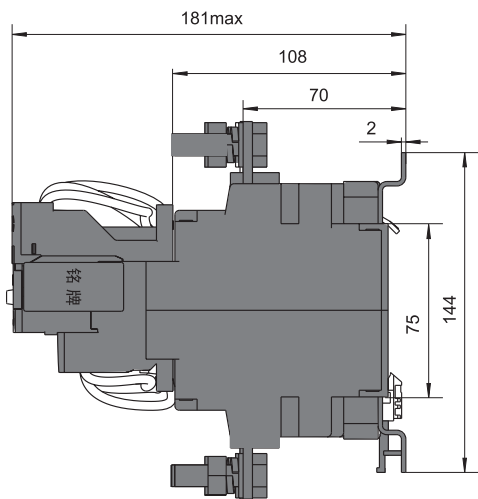


HDR3s 185 Indenpent Installation



	HDC3-120	HDC3-160	HDC3-185
A	248	253	257
B	167	167	171
C	172	172	183

HDR3s 630 Indenpent Installation

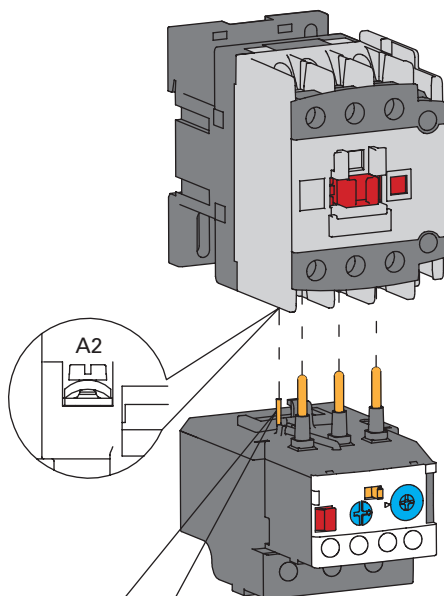


HDR3s Thermal Overload Relays

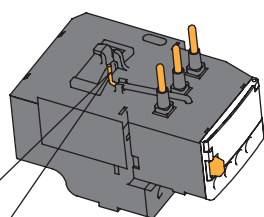
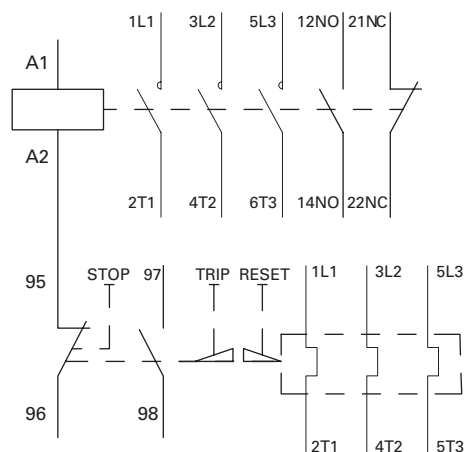
Standard: IEC60947-4



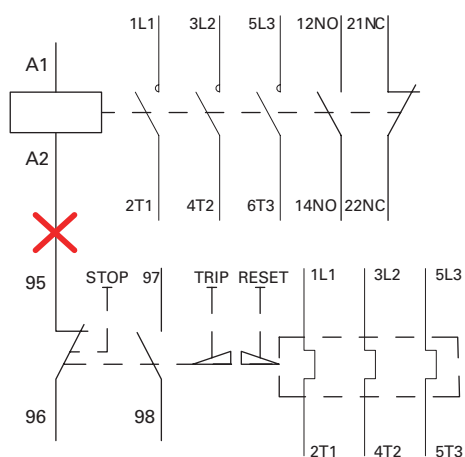
Assembly With Contactor



This wire is the coil rapid wiring terminal which can be used as the assembly with the contactor. When these two are completely connected, the screw in A2 contact point of the contactor coil should be tightened.



If this wiring terminal is not used, it can be cut shorter and then insulating tape should be used in conductive parts.



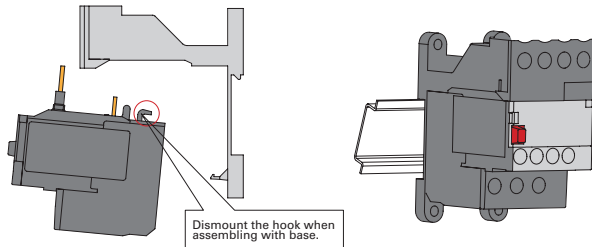
HDR3s Thermal Overload Relays

Standard: IEC60947-4

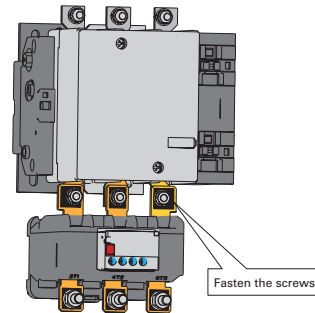


Assembly With Contactor

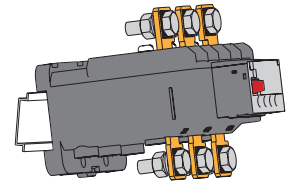
HDR3S 25 38 95
Independent Installation



HDR3S 185
Assembly Installation



Independent Installation

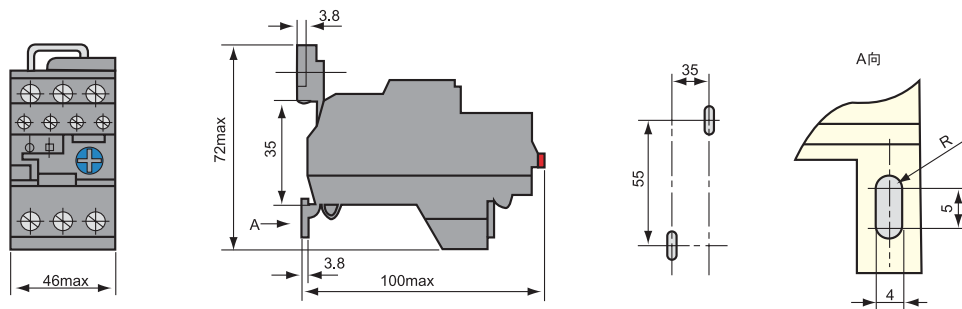


Note: It also can be fixed by screws.

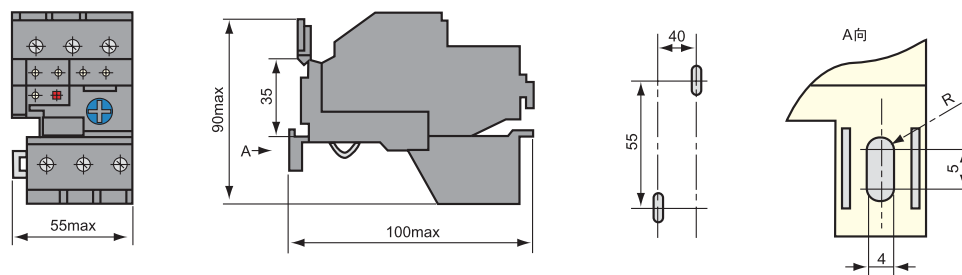
HDR3S 630
It only can be fixed by 75mm railway or screws

HDR3S 25 38 95 Installation Dimensions

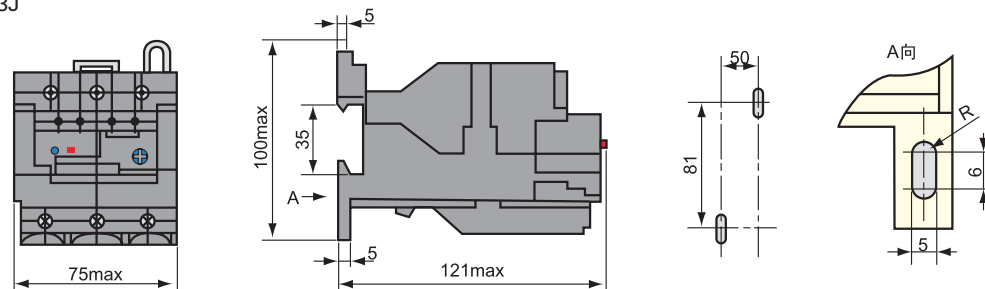
HJRS1D25J



HJRS1D36J



HJRS1D93J



HJX2 4P AC Contactors

Standard: IEC60947-4



HJX2 & HJX2F 4P AC contactor is Himel HJX series range of contactors designed for Motor Control AC3 applications up to 800A 690V.

HJX2 & HJX2F contactors are applicable to AC power systems 50Hz or 60Hz with rated operating voltage up to 690V.

HJX2 & HJX2F contactors can be combined with HDR3s thermal overload relays to provide overload protection.

Features

- ◆ Current specifications: 9-800A
- ◆ Pole: 4-pole
- ◆ Coil voltage: 24-440V
- ◆ Coil frequency: 50/60Hz

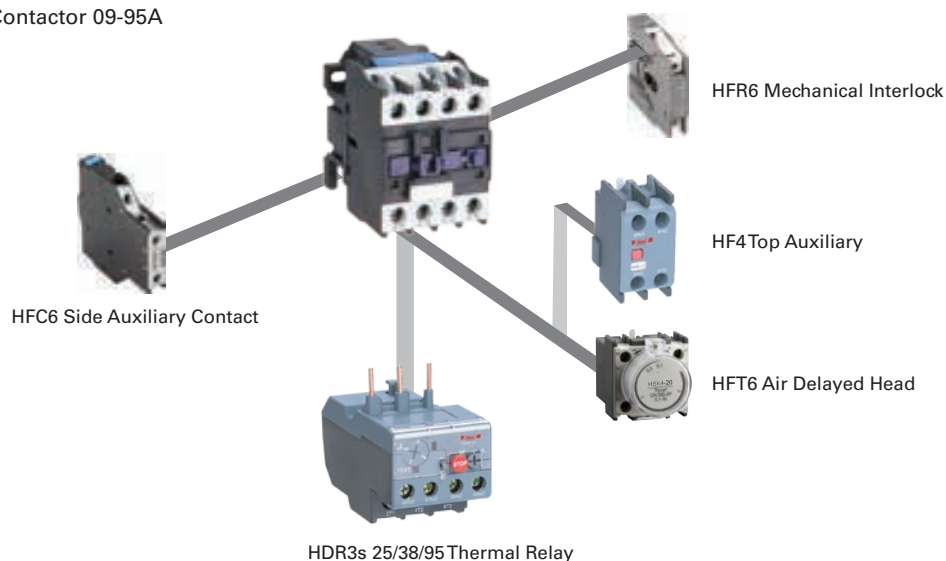


Selection Code

Range name	Current specification	Main contact	Coil voltage	Coil frequency
HJX2	09	4	M	7
HJX2	09: 09A 95: 95A	04: 4NO+0NC 08: 2NO+2NC	B: 24V C: 36V E: 48V F: 110V S: 127V M: 220/230V U: 240V Q: 380/400V L: 415V X: 440V	7: 50/60Hz

Overview of Accessories

HJX2 4P AC Contactor 09-95A



HJX2 4P AC Contactors

Standard: IEC60947-4



Technical Parameters

AC Contactors		HJX2-09	HJX2-12	HJX2-25	HJX2-40	HJX2-50	HJX2-65	HJX2-80	HJX2-95
Main circuit characteristics									
Maximum rated operating voltage (Ue)		690V							
Rated insulation voltage (Ui)		690V							
Rated impulse withstand voltage (Uimp)		8kV							
Conventional thermal current A		25	25	40	60	80	80	125	125
Rated Operating Current	380/400V AC-3 A	9	12	25	40	50	65	80	95
	660/690V AC-3 A	6.6	8.9	18	34	39	42	49	49
	380/400V AC-4 A	3.3	5	8.5	18.5	24	28	37	44
	660/690V AC-4 A	1.5	2	4.4	9	12	14	17.3	21.3
Rated power of controlled 3-phase cage motor	380/400V AC-3 KW	4	5.5	11	18.5	22	30	37	45
	660/690V AC-3 KW	5.5	7.5	15	30	33	37	45	45
	380/400V AC-4 KW	1.2	2.2	4	7.5	11	15	18.5	22
	660/690V AC-4 KW	1.1	1.5	4	7.5	11	11	15	18.5
Electric durabilities	AC-3 ×10 ⁴ operations	100	100	100	80	80	80	60	60
	AC-4 ×10 ⁴ operations	20	20	20	15	15	15	10	10
Mechanical durabilities ×10 ⁴ operations		1000	1000	1000	800	800	800	600	600
Operating frequency	AC-3 cycles/h	1200	1200	1200	600	600	600	600	600
	AC-4 cycles/h	300	300	300	300	300	300	300	300
Matched fuse		HRT16-25	HRT16-25	HRT16-50	HRT16-63	HRT16-80	HRT16-80	HRT16-125	HRT16-125
Cable connection cross section mm ²		1.5	1.5	4	10	16	16	25	35
Certificate		SEMKO							
Coil									
Coil voltage(Us) V		AC 24V, 36V, 110V, 220V, 380V							
Operating voltage V		85%...110% Us							
Drop-out voltage V		20%...75% Us							
Coil power	Actuation VA	70	70	110	200	200	200	200	200
	Holding VA	9	9	11	24	24	24	24	24
	Heat dissipation W	2.7	2.7	4	10	10	10	10	10
Terminal wiring ability									
Flexible wire without terminal block	1pc(Section of connecting conduction mm ²)	1 - 4	1 - 4	1.5 - 6	2.5 - 25	2.5 - 25	2.5 - 25	4 - 50	4 - 50
	2pcs(Section of connecting conduction mm ²)	1 - 4	1 - 4	1.5 - 6	2.5 - 16	2.5 - 16	2.5 - 16	4 - 25	4 - 25
Flexible wire with terminal block	1pc(Section of connecting conduction mm ²)	1 - 4	1 - 4	1 - 6	2.5 - 25	2.5 - 25	2.5 - 25	4 - 50	4 - 50
	2pcs(Section of connecting conduction mm ²)	1 - 2.5	1 - 2.5	1 - 4	2.5 - 10	2.5 - 10	2.5 - 10	4 - 16	4 - 16
Fixed wire without terminal block	1pc(Section of connecting conduction mm ²)	1 - 4	1 - 4	1.5 - 6	2.5 - 25	2.5 - 25	2.5 - 25	4 - 50	4 - 50
	2pcs(Section of connecting conduction mm ²)	1 - 4	1 - 4	1.5 - 6	2.5 - 16	2.5 - 16	2.5 - 16	4 - 25	4 - 25
Auxiliary contact									
Rated thermal Current (Ith) A		10							
Rated operating Voltage (Ue)	AC V	400							
	DC V	220							
Rated control capacity	AC-15 VA	360							
	DC-13 VA	33							